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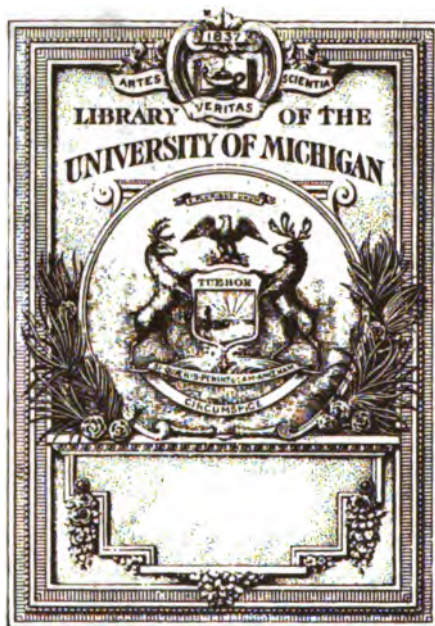
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THE GIFT OF
Mich. Dairy & Food Commissioner

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TWENTY-SECOND ANNUAL REPORT

OF THE

DAIRY AND FOOD COMMISSIONER

OF THE

STATE OF MICHIGAN

FOR THE

YEAR ENDING JUNE 30, 1915



BY AUTHORITY

LANSING, MICHIGAN
WYNKOOP HALLENBECK CRAWFORD CO., STATE PRINTERS
1915.

MICHIGAN DAIRY AND FOOD DEPARTMENT.

JAMES W. HELME	Commissioner
BURR B. LINCOLN	Deputy Commissioner
F. L. SHANNON	State Analyst
M. J. SMITH	Chief Clerk
H. D. WENDT	Clerk
MISS GLADYS DAME	Clerk
MISS RUTH HOARE	Clerk
MISS PAULINE E. PHILLIPS	Stenographer
MISS LILLIAN POMEROY	Stenographer
MISS IDA M. HARRIS	Bookkeeper
MISS NAN CHILDS	Chemist
W. C. GEAGLEY	Chemist
WALDO L. SCOVILL	Chemist
JOHN T. ROWE	Regular Inspector
C. V. JONES	Regular Inspector
WM. J. MICKEL	Regular Inspector
JAMES E. HELBER	Regular Inspector
EUGENE P. BERRY	Regular Inspector
R. E. Woodruff	Regular Inspector
CHAS. R. WEBB	Regular Inspector
F. M. DILLON	Regular Inspector
JOHN P. FETZ	Special Inspector
MRS. MYRA C. WHEELAN	Special Inspector
THOS. J. KELLY	Special Inspector
E. H. SHULER	Clerk and Messenger

DRUG INSPECTION.

A. R. TODD	Drug Analyst
CHAS. A. BUGBEE	Drug Inspector
M. A. JONES	Drug Inspector

LETTER OF TRANSMITTAL.

DAIRY AND FOOD DEPARTMENT,
Lansing, Michigan.

Hon. Woodbridge N. Ferris, Governor:

Sir: In accordance with the provisions of the act creating the Dairy and Food Department, I herewith transmit to you the report of the operations of this department in detail for the year ending July 1st, 1915.

FINANCES.

The annual appropriation for the support of this department is \$35,000, and in addition it derives certain license revenues from creameries, milk dealers, ice cream manufacturers, commission merchants and stock foods. During the past fiscal year over \$16,000 was collected from these various sources giving the department an available fund for the fiscal year of \$51,544.76.

During the year there has been expended in the operations of the department \$43,123.23, leaving a balance which was covered into the State Treasury at the end of the year of \$8,421.53.

The Drug Department receives a yearly appropriation of \$6,000. Of this there was expended during the year \$5,445.44 leaving a balance to be covered into the State Treasury of \$554.56. Combining the two, after running the department for the fiscal year, there was turned back to the general fund unused appropriations for the total sum of about \$9,000.

This financial showing I regard as an excellent one. Two years ago the legislature placed upon this department the enforcement of the Weights and Measures Law and not a dollar was given us to enforce that law. Michigan had been without a Weights and Measures Law for seventy years and a large number of abuses had grown up in the State. We have condemned and destroyed thousands of illegal measures in the State during the past year and condemned and adjusted thousands of illegal scales and that we could still turn back \$9,000 to the State Treasury in spite of the additional work imposed upon us, shows that the efficiency of the department is in A No. 1 condition.

We have been obliged to buy much extra equipment for the Weights and Measures Division which has been paid for from our regular appropriation and there is a constant expenditure for supplies and repairs in that department, yet our saving to the State of over 25% of our annual appropriation shows that all branches of this department have been run in an economical and businesslike manner.

INSPECTIONS DURING THE YEAR.

There were employed during the year on an average of eight regular food inspectors whose duties were to inspect stores, restaurants, hotels and other places where food is manufactured or stored. We have three dairy inspectors who inspect creameries and farm dairies, and two drug inspectors who inspect the drug stores of the State.

During the year these inspectors have made 16,550 inspections. Of these 12,395 were food inspections, 2,199 drug inspections and 1,956 dairy and creamery inspections. The records show a slight decrease over last year which I will explain later.

During the year most of the inspectors were instructed in the elementary work of inspecting scales and measures, and some of them have become quite expert in these lines. Necessarily this takes part of their time and they cannot go over the territory quite as rapidly as when they had only foods to inspect.

During the year I have had two practical expert cheese and butter makers devoting their entire time to the inspection of butter and cheese factories, and an additional expert of this character who is engaged in the educational work of showing the dairies and creameries of the State how to produce a better product in the most economical manner.

The number of food samples sent in by inspectors during the year was 1,292, which on being analyzed 847 were found to be legal and 445 were found to be either adulterated or misbranded. Of the 558 drug samples sent in by the Drug Inspectors, 424 were found to be legal and 134 illegal. In the Stock Food Division we analyzed about 278 concentrated feeds during the year. The number of samples taken up and analyzed is slightly less than in former years but this is really a mark of progress. An Inspector on his visits only takes up samples when he has some reason to believe that they are adulterated or misbranded and fewer samples taken up means that general conditions are better than previous.

PROSECUTIONS.

The prosecutions during the year have been greater than in any previous year of the department, being about five times as many in number as the average in the department previous to my assuming the office of commissioner. At the beginning of the year there were 36 cases pending. During the year 284 cases were commenced. There was secured during the year 225 convictions. 12 defendants were acquitted on trial and 26 were dismissed after investigation, leaving 57 cases pending on July 1, 1915.

In this connection I would say that the policy of the department in regard to prosecutions is that the offender should be first warned of violation of the law. After this warning, if he again transgresses the statutes, we start a prosecution but no prosecution is started on a technical violation of the law. There must be a violation of the spirit of the law as well as the letter before any prosecution is started. There are, of course, a few exceptions to this rule, of wilful violations of the law, such as watering milk. In these cases we feel that a warning is unnecessary.

EDUCATIONAL WORK.

In spite of the large number of prosecutions in the department, at least four-fifths of the work of the department is educational as it should be. Our educational pamphlets have attained a wide circulation. Our pamphlet on Foods and Food Values has been adopted as a text book in many schools both within and without the State. It has been complimented very highly by Dr. H. W. Wiley who recommends the people who write him for information on the subject of foods, to obtain this pamphlet.

Our pamphlet on Clean Cows and Clean Stables has been called for by citizens in every State in the Union, and our pamphlet exposing fakes and frauds in various foods and medicines has had to be re-printed to supply the demand from the State and country at large.

We have also issued other pamphlets on the care of milk and the manufacture of butter and cheese. The head of this department is constantly engaged in making talks to various bodies such as Women's Clubs, Grocers' Associations, Ice Cream Manufacturers' Associations, Granges and Creamery Companies explaining the food laws and the workings of the department and endeavoring to educate all his hearers to a better and more economical use and production of these products.

During the year we also ran an educational train for two weeks in the Upper Peninsula reaching many small towns that had never before seen the exhibits of this department. I have also issued occasional press bulletins which have been sent to the leading papers of the State and have been almost universally published, and much useful information in regard to foods and drugs has been disseminated.

WEIGHTS AND MEASURES.

The legislature of 1913 passed a modern Weights and Measures Law and placed the enforcement of same with this department. Soon after going into effect I assigned to Deputy Commissioner Lincoln the enforcement of the Weights and Measures Act and he has been in charge of that branch of our Department work ever since. I cannot commend too highly Mr. Lincoln's efficient and energetic work in enforcing the Weights and Measures Law of the State. It was a tremendous problem to break in a new field and arouse people to the necessity of having standard weights and measures. Naturally much criticism was directed at the department, none of which was deserved, but this of course was to be expected. Mr. Lincoln became thoroughly posted upon the subject of weights and measures and then proceeded to enforce the provisions of the act in a firm but not obnoxious manner. For the details of the work of the department along this line, I respectfully refer you to his special report on weights and measures which is a very comprehensive one in all respects and defines the action of the department.

COMMISSION MERCHANTS.

During the year forty-two commission merchants of farm products have been licensed by this department under the law of 1913. This is.

a very important law which provides not only for the licensing of commission merchants in farm products with this department but it also provides that any complaints between producers and commission merchants shall be investigated and adjusted by this department. Under this provision we have received several complaints during the year against commission merchants in the State. Every one of these cases was investigated by the department and satisfactory settlements made between the parties without recourse to the courts. It did not cost the department anything to do this because we had local inspectors on the ground and the satisfactory adjustments were made without cost to the interested parties, many of whom could not have journeyed to the business centers where their products had been sold, without an expense that would have practically confiscated the products that they had consigned. As the law becomes more widely known, we anticipate that it will be of great benefit to all producers of farm products.

BEET SUGAR INSPECTION.

The legislature of 1913 passed a law, mainly at the request of the beet sugar manufacturers, for the inspection of the methods of weighing, taring and testing of sugar beets by this department. After the first year's operation of this law, I became convinced that it was impractical to enforce it and so notified the beet sugar manufacturers. They seemed to think that I had not put sufficient ginger into the enforcement of the law and that if I did so, it would prove of great benefit. Consequently in the fall of 1914 I assigned some of my most energetic inspectors on this job. A vigorous enforcement of the law was attempted and many prosecutions were started for its violation. As I had anticipated the law proved to be highly unpopular and convictions were impossible under it. Even the manufacturers themselves became convinced that it was impractical and asked the legislature to repeal the same which was done with my approval.

LEGISLATION.

The operations of this department during the past year have been very seriously impeded by too much politics. When the legislature of 1915 assembled on January 1st, it developed into a strong partisan legislature. Soon after it assembled, a bill was introduced to transfer this department to the Agricultural College. The bill was backed by a combination of interests, some of which were political, some personal to the head of the department, and they were re-inforced by various retail merchants whose opinion of the department had not been heightened by their prosecution for a violation of the Food Laws of the State. These interests combined to make a common attack on the department, largely to revenge themselves for various grievances which they deemed they had suffered from the head of this department.

The combination became formidable about the middle of March and at that time the head of the department determined to call upon such friends as he had in the State to come to the rescue of the department. Inside of a week after this bill was made, petitions were filed in the

legislature signed by over eleven thousand citizens protesting against the proposed change. In addition to this the Wholesal Grocers' Associations in the State, the Grand Rapids Retail Dealers' Association, various associations of druggists, ice cream manufacturers, creameries and dairymen sent in vigorous protests to the legislature against the passage of the bill. The results were very gratifying as it was demonstrated to the legislature that the department had a much larger number of friends than enemies, and the bill was reported back to the committee from whence it came and was smothered.

The effect of this action, however, was immediately felt in the department activities. During the four months' sitting of the legislature, the activities of the department were practically at a standstill, both the office and the field force were demoralized with the possible loss of their jobs and the activities of the inspectors were largely curtailed because it was not deemed politic to make any prosecutions or take any vigorous action during those months for fear that more enemies would be incurred who would join the force at Lansing already clamoring at our heels. For this reason the activities of the department during four months in the year were practically at a standstill and instead of prosecuting the food violators, the department was compelled to engage in the task of defending itself from the combined attack of politicians, food adulterators and short weight artists. In view of this fact, when we look at the work of the department and find that it exceeds the work of last year when we were unhampered, I regard the year, all things considered, as being one of the most successful that we have had. In spite of four month's standing still, we increased our convictions during the year from 222 to 225 and last year was five times greater than any other year in the history of the department.

At this time I desire to extend my thanks to the many honest merchants and manufacturers of the State who came to the assistance of the department and spent their time and money to send telegrams and circulate petitions in favor of the department. I also wish to extend my sincere thanks to your Excellency for the firm and vigorous stand taken by you in defense of the department during the entire year.

Partisan politics are the curse of all departments and if in some way partisan politics could be abolished from our state affairs, the result would be much more efficient service at a much less cost.

During the three years that I have been at the head of this department, I have demonstrated that it can be as economically administered as any private business. During those three years I have turned back to the State Treasury, unused, nearly \$30,000 of my appropriations, all of which I could have spent by employing extra men, and there were certainly plenty of applications for jobs. No other State department will show a similar record but I am satisfied that any of them could show a record equally as good, and would show it, if the curse of partisan politics was eliminated from State affairs and jobs given to men for their fitness and efficiency instead of their partisan activities.

NEW LEGISLATION.

Several bills were introduced by the department at the last session of the legislature but few of any importance passed. The most important which became a law was the bill regulating the soft drink business. This bill was backed by the State Bottlers' Association who desired to remedy many trade abuses in that business. As a result of its passage all bottlers of soft drinks are now required to take out a license from this department. The law has not as yet gone into effect but the department and State Bottlers' Association propose to co-operate in its enforcement and many abuses will be remedied thereby.

The Weights and Measures Division discovered that there was a large variation in the size of milk bottles in the State and also in the size and shape of milk and cream bottles used in the operation of the Babcock test. To remedy this, laws were enacted which provide specifications for the size and shape of milk and cream bottles and manufacturers are not allowed to ship anything into the State except bottles which conform with the State specifications.

At the instigation of the Agricultural College, inspection of feeding stuffs was removed from this department to that institution. The law under which we operated was very defective but we had successfully enforced it more by bluffing than by any legal measures. The law was our greatest revenue producer, this department receiving annually about \$5,000 from licenses from stock feed manufacturers. We enforced the Feeding Stuffs Law with our regular inspectors and so this \$5,000 was annually turned into the State Treasury for the benefit of the taxpayers. This unknown and irregular proceeding attracted the attention of the College who seemed to think that \$5,000 was going to waste. Consequently they succeeded in getting the legislature to transfer the department to that institution with the proviso in the law that this fund instead of being turned into the State Treasury should go into the College fund.

In making a new law the defects of the old law should have been avoided but as no one at the College seemed to be competent to draw a new law, the old law was copied and revised with all its defects.

IN CONCLUSION.

All institutions have their set-backs and the State Dairy and Food Department is no exception. In the month of September, 1914, this department analyzed and ordered condemned a number of tons of frozen eggs situated in a Detroit cold storage house. Instructions were sent to three Detroit inspectors to see that the eggs were destroyed. When they went to the owner of the same, they were offered \$25 each not to carry out the orders of the Department. It was accepted. Afterwards in attempting to get more money out of the same owner, they were detected and placed in jail. On the same day the head of this department dismissed them from service and at once urged the Prosecuting Attorney of Wayne County to use his utmost endeavors, not only to bring justice to the culprits, but also to investigate to ascertain whether or not they had been implicated in any other transactions of this nature or whether

any other employe of this department was connected with them. A vigorous investigation by the police authorities disclosed the fact that this was the only transaction in which the three men were implicated and that no other employe of the department was involved.

On the trial in the Recorder's Court in Detroit, two of the men were convicted and one acquitted; which was a miscarriage of justice. The owner of the eggs, who did the bribing, left the State after he was subpoenaed for the trial and has not yet returned. While I regret the occurrence, I feel gratified to think that they were discovered speedily and that justice was awarded to them and that no other employe was implicated.

The operations of this department are peculiar. Our principal business is looking for trouble and naturally we find it. After having found the trouble, we have to handle it vigorously and without gloves. As a result many persons who come in contact with the department become bitter enemies of everyone concerned and try to arouse antagonism on every possible occasion. We have had a tempestuous voyage during the past year but I can truthfully say that in spite of the storms it has been one of the most successful years in point of service rendered the State that the department has ever been through, and for that result I tender to the entire force of employes my heartfelt thanks for their loyalty and efficiency.

Respectfully submitted,

JAMES W. HELME,
State Dairy and Food Commissioner.

NEW DAIRY AND FOOD LAWS.

We give herewith the principal changes made in the Dairy and Food Laws of Michigan by the Legislature of 1915. These laws, except where otherwise noted, take effect August 20, 1915.

DAIRY LAWS.

The Renovated Butter Law has been so amended that hereafter all tubs and retailer's packages of this substance must be marked "Renovated Butter." The term "Process Butter" cannot be used after August 20th. Also, all hotels, restaurants or other places that serve renovated butter on their tables are required to post in their dining room a white placard on which is printed in black ink in plain Roman letters not less than three inches in length and two inches in width, the words "Renovated Butter used Here."

A Standard Milk Bottle Law has been enacted. After January 1, 1916, all bottles used for the sale of milk and cream shall be of the capacity of half gallon, three pints, 1 quart, 1 pint, 10 ounces, $\frac{1}{2}$ pint and 1 gill. The capacities are required to be stamped on the bottles. Manufacturers of milk bottles who sell bottles to be used in the State are required to file a bond to furnish standard bottles as prescribed in the Act, and a designating number to be furnished by the Dairy and Food Commissioner, shall be blown in every bottle by each manufacturer.

Cheese factories, creameries and skimming stations are required to pasteurize all by-products before they return them to the farmer except creameries that pasteurize their cream prior to manufacture.

An Act was also passed which provides a State Brand may be furnished creameries of the state, to be used on their butter, provided it has certain qualifications as to quality, which are to be fixed by the Department.

The Babcock Test Law has been amended so that specifications are provided for Babcock Test Bottles and other glassware, and also specifications are provided as to Cream Scales. The specifications of the Babcock glassware are the same as the Federal specifications.

FOOD LAWS.

Practically the only change in existing Food Laws, was the passage of the Bill regulating the manufacture and sale of carbonated beverages and other soft drinks. All bottlers of carbonated beverages must take out a license with the Dairy and Food Department, which costs \$10.00, and must be renewed annually. All bottled, carbonated beverages are by this law standardized, shall be made from cane and beet sugar syrup, shall contain in the finished product not less than eight per cent sugar, and contain pure flavoring material and if colored, only certified colors are permitted.

Persons selling any soda water syrup or extract, soft drink syrup or extract bearing a distinguishing name or trade mark, are required to furnish a sample of same to the Dairy and Food Commissioner and have the same licensed. The license fee is \$5.00 for each and every brand of syrup or extract and must be renewed annually. The manufacturer who pays this license is entitled to sell throughout the state and no license is required from the retailer who sells his product.

Beverages sold in bulk or from an open receptacle that contain artificial color or artificial flavor of any character, are required to be labeled and the label shall be displayed in all places where the beverages are sold. Labels for this purpose shall not be less than four inches in width and ten inches in length. A provision is also made for proper sterilization of all bottles used and the Dairy and Food Commissioner may revoke the license of any bottler who fails to comply with the provisions of the Act.

DRUG LAW.

The Drug Law was so amended that any drug or patent medicine is deemed to be mis-branded if the package or label should bear or contain any statement, device or design regarding the curative effect of such articles, which is false and fraudulent.

LAWS REPEALED.

The law requiring the testing of sugar beets by the Department has been repealed.

The Law requiring the registration of commercial feeding stuffs for animals has been amended so as to transfer that department to the Agricultural College at East Lansing. Law takes effect Aug. 20, 1915.

Lansing, Mich., Nov. 21, 1914.

To Manufacturers and Packers of Syrups and Molasses and to Wholesalers, Brokers and others dealing therein:

It has been brought to the department's attention that pails, cans and other containers in which syrups and molasses are sold, are now labeled in terms of pounds, and ounces avoirdupois instead of in terms of gallons, quarts and pints, liquid measure.

It was the department's contention that this method of labelling is in direct contravention of Michigan's Net Weight Law and the Attorney General's interpretation of Section 3a, Act No. 162, Public Acts of 1913, in its application to syrups and molasses was requested. The department is in receipt of the Attorney General's opinion and it is therein held that syrups and molasses shall be labelled in terms of gallons, quarts and pints, liquid measure.

This department will not contest the sale of such syrups and molasses labelled in terms of pounds and ounces as are now in the hands of wholesale and retail grocers within the state but all future shipments into the state are required to be labelled in conformity with the provisions of the act as interpreted by the Attorney General of this state, to-wit, in terms of gallons, quarts and pints, liquid measure.

The quantity of the contents shall be marked in terms of the largest unit contained in the package.

Very truly,
JAMES W. HELME,
State Dairy and Food Commissioner.

"GOING UP."

BY JAMES W. HELME.

Mr. High-Priced-Meat after doing several amateur aerial stunts during the past year, has finally joined the professional ranks and made an out-of-sight ascension and gone to Europe. Now that the balloon has gone out of sight; there is nothing for the spectator to do but look around and wonder what to do about it.

The public should at once get educated on what constitutes a cheap balanced ration for the human animal. Two kinds of foods are necessary for human life. The carbohydrates which furnish heat and energy and the proteins which repair the bodily waste. The first are obtained by starchy or fat foods and are easily and cheaply obtained from potatoes and the cereals. Protein to repair bodily waste has generally been obtained through meat. But there are other sources of protein much cheaper. A working man needs three ounces of protein daily to repair the bodily wastes. Before the balloon went up this could be obtained in beef steak for 17c. Some vegetable foods contain a large amount of protein. Three ounces of protein in the form of beans can be obtained for $\frac{1}{3}$ what it costs in beefsteak. The moral to the housewife is to feed the "old man" more beans and less beefsteak. Peas and lentils are also rich in protein. A quart of milk has more food value than a pound of meat and is more easily digested. Cheese has a much greater food value than meat, pound for pound. Canned salmon has a much greater food value than any meat and costs less. Meat is not necessary for human existence. This is maintained by as great an authority as Dr. Kellogg of Battle Creek, who has raised a family of 22 children and ought to know from experience. Potatoes and corn meal are the cheapest form of starchy foods. Michigan produces more beans and potatoes than any state in the Union, and is third in the production of cheese and milk. Michigan people ought not to be embarrassed because meat has taken a flyer. Moreover, beef is often tubercular. Pork has at times the trichina worm and mutton is sometimes "measly" which contains the germ of the tape worm, so we are missing a lot of things if we don't eat meat.

In anticipation of the war this Department has had printed 20,000 copies of a bulletin on Foods and Food Values, which can be had free on application. It shows the food value of all common foods. From it the housewife can figure out a balanced ration that will keep the human engine going without paying 40c a pound for beefsteak. If we all cut out a greater part of the meat we eat, we will have better health and at the same time put a hole in the high priced meat balloon with the old gun "lack of demand" that will make it come down within reach again. Education of food consumers on food values is the most available remedy at present for the high cost of living.

IMPORTANCE OF CLEANLINESS AROUND THE DAIRY.

C. V. JONES, STATE DAIRY INSPECTOR.

To fully appreciate the extreme importance of cleanliness around the dairy, the dairyman must bear in mind that bacteria commonly found in milk are miniature plants, and like all plants, such as wheat, corn and grasses, require three things for their growth, namely, soil, moisture and proper temperature.

Milk is an ideal medium for the development of all kinds of bacteria. Bacteria, like all other plants, require food, and milk is a good food. Milk is well supplied with water, and the casein or curd of milk forms a good soil or food for bacteria to grow upon. And when milk is first drawn from the udder of the cow it is at a temperature best suited to the most rapid growth of the types of bacteria commonly found in milk.

Where do the bacteria come from? It should be borne in mind that the bacterial content of milk, largely, comes from some source external to the cow. It is a fact that some of the bacteria of milk come from the cow directly, but with few exceptions these bacteria are harmless, having power to curdle or sour the milk only. The dangerous type of bacteria found in milk, almost invariably, reaches the milk through some outside agency.

Since the vast majority of bacteria found in milk reaches it through external sources, it is self-evident that the number of bacteria finding their way into milk may be more or less controlled by the dairyman. Thus, all reforms in the dairy world fostered by HEALTH BOARDS, and PURE FOOD COMMISSIONS, are designed to accomplish several ends, namely,—1st, to eliminate, as far as possible, all diseased or unhealthy animals from the dairy herd. 2nd, to guard the milk from becoming contaminated after it leaves the cow's udder until it finally reaches the consumer. 3rd, to assist the dairyman to bring about conditions around the dairy that will tend to lessen the number of bacteria finding their way into milk, and as far as possible, to produce conditions that will prevent the growth and multiplication of the bacteria that unavoidably get into milk.

The dairyman frequently argues that milk inspectors often make demands upon him that he cannot afford to meet and sell his product at the ruling prices. He also frequently feels that many of the precautions are unnecessary, and that suggested departures from the old methods are trifling and unimportant, at the same time, imposing upon him an unnecessary expense and inconvenience. He forgets that conditions are continually and rapidly changing, and that the demand for a clean and sound milk is greater and more emphatic today than ever before.

The dairyman should remember that the observance of these precautions, on his part, and his endeavor to meet the demand for a purer

milk will hasten the day when he will be able to ask a higher price for his product and receive it. He should also remember that it is the non-observance of sanitation and cleanliness around the dairy and stables that is a cause for so much butter, cheese and milk being sold upon the market at a loss to both the producer and manufacturer alike.

When the dairyman shall have learned, better, how to produce clean milk, and shall have come to give greater attention to the vast need of cleanliness and sanitation both around the dairy and stables, and shall pay strict attention to the cleanliness of all utensils used around the dairy, such as pails, cans, strainers, strainer-cloths and cream separators, and shall make it his chief business to determine that the udders of the cows are properly cleaned before the milking is done, and that the person and hands of the milker are in fit condition to insure milk free from external contamination, and shall also have a proper regard for the importance of cooling the milk and keeping it cool until delivered to the consumer or manufacturer, he shall have hastened the dawn of greater prices for both the milk and its products.

The demand for a purer milk, and for greater care in its production is growing steadily, and this demand will be more and more strictly enforced.

To meet the demands for a purer milk, the dairyman must pay especial attention to the following requisites so closely related to the production of clean and wholesome milk.

1st. Health of Cow:—The dairy herd should be inspected, periodically, by a veterinarian, to determine their soundness; and no animal suffering from contagious disease, especially disease of the udder, should be allowed to contribute to the milk supply. It would be almost impossible to over-rate the importance of excluding tuberculous cattle from herds contributing to the public milk supply, particularly where milk reaches the public in its raw, or unpasteurized state. The dairyman who would gain the confidence of the milk consumer will have his dairy herd inspected at intervals, and apply the tuberculin test to all of his cattle, and any animal that reacts must be taken away from the rest of the herd.

The udders of the cows should be watched carefully, and when there are any signs of inflammation or disease, or where there is an appearance of gargetty or bloody milk, the animal's milk should be discarded until she has completely recovered. To insure healthy cattle they must be given a fair amount of out-door exercise, and allowed to breathe plenty of fresh air.

2nd. Stables:—The stables must be light, airy, dry, clean and comfortably warm. There should be, at least, three square feet of light for each animal in the stable. Many of the "City Health Boards" demand five square feet of light for each animal confined in stables. Light is Nature's great disinfectant. Stables should be airy. Each cow should have, not less than, four hundred cubic feet of air space, and when the cattle are turned out into the yard, as they should be daily, except in extreme weather, the stables should be properly aired. It is important that dairy cattle spend a portion of the day outside, and the length of time so spent should be regulated by the temperature and

condition of the weather. Cattle giving milk must not be exposed to the cold rains or zero weather, but if the weather is clear, and not too cold, they should be given ten or fifteen minutes out-door exercise daily. Each dairy barn should be equipped with a good system of ventilation. The stables should be dry. Where the walls and ceiling of the stable are unduly damp the cause may frequently be traced to faulty ventilation.

Wherever possible dairy barns should be built upon high and dry ground, and surroundings kept clean by removing the manure a good distance away. This may easily be done by using a litter carrier. The stables ought to be cleaned daily, at least, and not less than two hours should elapse between the cleaning of the stable and milking time. The interior of the stable should be smoothly finished. Floors should be made of cement, and should be made smooth except where the cows travel so as to make easy their cleanliness and sanitation. The ceilings and walls should be close and smooth, and should be white-washed every six months. This can be easily done by a spray pump. White-wash disinfects and makes the stable light and clean. Dust and cobwebs should receive special attention, for these form traps for the accumulation of dirt, and are also sources of bacteria that find their way into milk, and contaminate it. Cattle should be supplied with plenty of clean bedding.

It is very important that the cows be confined in some form of stable that will tend to keep them clean. If the dairy farmer feels that he cannot afford the expense of putting in modern stanchions with gas pipe fittings, he can use the so-called model stall which he can build himself at a very low price and it will keep the cows absolutely clean. Details and specifications of this stall will be furnished by this Department on request. Write to the State Dairy and Food Department, Lansing, and ask for the Bulletin on Clean Cows and Clean Stables.

Dairy Employees:—To insure clean and wholesome milk, it is necessary to pay considerable attention to the personnel and habits of the persons employed in the dairy. In the better class of dairies, those who do the milking wear white linen coats and trousers. White is preferable to dark clothes since it shows the dirt when soiled. The clothes of the milkers should be made of washable materials. It has been determined on careful investigation that bacteria from the hands and clothes of the persons milking the cows, and handling the milk, is often more dangerous than those from other sources. Hence, it is becoming common in the best class of dairies to insist upon a thorough washing and drying of the hands of the milkers before milking commences. No one should be permitted to handle any milk, or to wash or handle the milking utensils in any way, who is suffering from any contagious disease. Also the use of tobacco should be strictly forbidden around the dairy. Any farm upon which there is a case of typhoid, scarlet fever or diphtheria should not be allowed to furnish milk to the public, without first obtaining a permit to do so from a competent health officer.

Guarding The Milk:—We have seen that most of the bacteria in ordinary milk comes not from the udder of the cow, but from some external source, hence the greatest caution should be practiced in the

care and handling of the milk after it leaves the udder of the cow. Milking out of doors is to be especially commended, and should be practiced where and whenever possible. Cows should not be fed hay or other dry fodder during the milking period, but rather immediately after. Feeding the cows dry feed is sure to fill the air with dust and dirt, and experiment has shown that milk contains a larger number of bacteria where the cows are fed dry feeds, during, or immediately preceding milking. It is much better to feed immediately after milking, as then the bacteria laden dust will have a chance to settle before the next milking time. This practice will result in a cleaner milk, and hence a lower bacterial content.

Cleanliness of Cow:—If a clean and pure milk is to be obtained, it is absolutely necessary to give much attention to the cleaning and grooming of the dairy cattle. The more successful dairymen are giving much attention to the grooming of the cows, and in numerous instances the cleanliness of cows is given as much attention as that of the horse. This is absolutely necessary if a proper milk supply is to be obtained and maintained. Where cattle are confined to stables some manure is bound to adhere to the flanks and tail, and where the hair is particularly long and coarse the character of the milk is bound to suffer if much attention is not given to the cleanliness of the cow before milking time. The hair of the udders, flanks and tail of the cow should be clipped occasionally, and she should be groomed at least once each day. Cows should not be allowed to wade through mud or manure. Many barnyards are filthy and unfit for cattle to run in, simply because they are not properly drained and kept clean. The manure should never be allowed to accumulate in the barnyard, but should be dumped into a spreader and drawn to the field and spread. This practice saves much time and labor and insures greater fertilizing efficiency. A clean dry branyard for the dairy-cattle to exercise in will contribute much to the cleanliness and health of the cows, and hence influence the purity of the milk.

Dairy Utensils:—Perhaps more than any other source, dairy utensils affect the bacterial content of milk. It is self-evident, therefore, that dairy utensils should receive the greatest of consideration and care, yet how often we find milkpails, strainers, coolers, milk cans, cream separators, etc., that have never been properly cleaned and sterilized. To properly care for dairy utensils is no ordinary or easy task, and it is practically useless to attempt to clean milk pails, strainers, etc., with cold or even warm water. All milk vessels should be made of good metal, with a perfectly smooth surface.

All milk utensils should be rinsed as soon as they are emptied with cold water. If the milk is allowed to dry upon them, it makes it very hard to clean them afterward. If they are rinsed as soon as they are emptied, the cleaning is made much easier. After rinsing they should be cleaned by using warm water with a good washing soda and brush, not a cloth. Then rinse with warmer water, after which use plenty of boiling water, or preferably live steam for sterilization purposes.

Where milk is being delivered to a large dairy or creamery the cans should be cleaned and sterilized before being returned to the farmers.

Cooling Milk:—It is not enough that we use every precaution to guard the milk against undue infection, but it must also be protected against contamination and deterioration, therefore the next most important step toward its safe-guarding is to properly cool it immediately after it is drawn from the cow. Cooling the milk to a temperature of 50 degrees Fahr. or below retards the action and growth of the bacteria that have found their way into the milk, and if the milk is held uniformly at this low temperature it will keep sweet for a very long period.

Milk produced under sanitary conditions, properly cooled and kept clean and cool will remain sweet for an indefinite period.

MORAL—BE CLEAN—KEEP COOL.

Dec. 9th, 1914.

**RELATIVE TO CREAM TEST SCALES AND BABCOCK TEST
GLASSWARE.**

Notice has come to this Department that the idea is prevalent throughout the state that his Department has issued rules and regulations relative to cream test scales and Babcock test glassware.

The purpose of this bulletin is to advise you that no such regulations as yet have been made and that none will be issued for several months. However, in view of the fact that this Department is working on these specifications and will issue same in due time in compliance with our weights and measures law, we feel that users of scales as above referred to and Babcock glassware should be advised that the Department will furnish anyone, upon request, with the probable rules and specifications that the Department will issue, to use as a guidance in case it becomes necessary for anyone to purchase any new glassware or scales prior to the time the specifications will be issued, so as to avoid the possibility of having them condemned later on. While it is altogether likely that as this matter relates to Babcock test glassware, the Federal specifications will be followed largely. The same thing holds true as to scales. However, this should not be taken for granted and in all cases would advise that this Department be consulted before buying any new scales or glassware, so as to avoid the possibility of stocking up with scales or glassware that will not comply with specifications that will be issued by this Department.

JAMES W. HELME,
State Dairy and Food Commissioner.

WARNING TO CREAMERIES AND FARMERS.

The outbreak of the foot and mouth disease in Michigan, if it attacks the dairy herds in the state, promises untold and irreparable damage to the dairy industry. In Berrien County it was found that many herds of hogs were afflicted with the disease before any symptoms were shown by the cattle on the same farms. This was traced to the fact that skim milk from creameries receiving whole milk was sent back to the farms to be fed to the hogs. The milk from one infected herd sent to the creamery would thus infect the hogs of all farmers sending milk to that creamery. The hogs would in turn infect the cattle.

Creameries are hereby warned *not* to send back to the farm any skim milk unless it is first pasteurized as long as the disease prevails in the state.

Farmers are warned *not* to feed skim milk to their hogs that comes from any creamery unless it has first been heated to the boiling point.

The wide-spread prevalence of this disease caused by the shipment of feeding cattle from Chicago makes all points in the Lower Peninsula dangerous if skimmed milk is fed to hogs. The same argument applies to whey returned from cheese factories.

Compliance with these regulations, until the disease is stamped out, is of the utmost importance to the creameries and cheese factories of the state and their patrons if the dairy herds are to be spared the frightful ravages of this disease.

Inspectors of this department will see that these regulations are enforced until the removal of the quarantine.

JAMES W. HELME,
State Dairy and Food Commissioner.

THE HEALTH AND FOOD SPECIAL TRAIN.

The Dairy and Food Department in co-operation with the State Board of Health duplicated its performance of last year and ran another educational exhibit train during the month of August.

The train consisted of two 60 ft. baggage cars, one loaned the Dairy and Food Department by the Minneapolis, St. Paul and Sault Ste. Marie Railroad, the other loaned the Board of Health by the Grand Trunk Railroad and a third a Pullman furnished by the Pullman Company. The baggage cars were filled with exhibits from the two departments, while the Pullman was used as sleeping quarters by the demonstrators who accompanied the train. Each Department sent out 5 men with the train, each man being especially informed on some one topic which was illustrated among the exhibits. The following men represented this department and accompanied the train throughout the

entire trip: F. L. Shannon, State Analyst, W. C. Geagley, Assistant State Analyst, C. R. Webb, Dairy and Creamery Expert, R. E. Woodruff, Deputy Weights and Measures Inspector and Dr. E. J. McLaughlin, U. S. Veterinary Inspector from the U. S. Department of Agriculture. Each man took charge of that part of the exhibit with which he had expert knowledge of and delivered short lectures at each stop. Another member of the force kept about four days ahead of the train distributing hand-bills and other advertising matter.

The train left Lansing, August 2nd, on the Grand Trunk Railroad, proceeding up the eastern coast of the State to Mackinaw City. Here we crossed the Straits and toured the entire Upper Peninsula, completing the trip August 29th. About fifty stops were made in all; no stop was less than one hour, the majority being from one-half to one day. With very few exceptions we were greeted by large crowds at every stop who passed through the cars listening to the talks and carrying away literature. It is estimated that on the whole trip 75,000 people viewed these exhibits. Over 20,000 bulletins on various subjects were distributed by this Department, each bulletin being placed directly into the hands of an interested reader. By this means many people who did not have an opportunity to visit the train were benefited.

After the initial tour was completed, special tracks were laid on the Fair Grounds of the Western Michigan Fair at Grand Rapids and the train was one of the attractions during the ten days of the fair. From there the train was taken to the State Fair at Detroit and the exhibits remained there during the two weeks of the Fair.

It is only due to the benevolent attitude of the railroads that such educational propagandas as these are possible. The entire equipment of this train was furnished free by the railroads and the Pullman Company. The roads over which the train run, viz., Grand Trunk, Pere Marquette, Detroit and Mackinac, Michigan Central, Duluth, South Shore & Atlantic, Minneapolis, St. Paul & Sault Ste. Marie, Chicago & North Western, Chicago, Milwaukee & St. Paul and Copper Range furnished us with an engine and special crew and with the exception of one slight mishap the train was handled throughout the entire trip in an excellent manner.

SOME OF THE PRESS NOTICES OF THE TRAIN.

The Dairy and Food car is of keen interest to those interested in the work of that important commission, headed by "Jim Helme."

A very extensive exhibit on "Weights and Measures" is a feature of the car. During the past year, inspectors of the department have been gathering together short measures, dented measures, scales that have been tampered with, drilled weights and many other ingenious devices to defraud the public, all of which are worked into an attractive exhibit.

The exhibit on fakes and frauds, showing up the many fakes that are being sold as cure-alls for all diseases, has been built over and is making even a bigger hit than it did last year.

Misbranded and mislabeled foods bring home the fact that some manufacturers hew so close to the line that they sometimes step over.

"HEALTH FIRST"

AND

"PURE FOOD" SPECIAL

CARRYING EDUCATIONAL EXHIBITS FROM

Michigan Dairy and Food Dept.

AND

Michigan State Board of Health

WILL BE IN

PLACE	DATE	TIME	STATION	PLACE	DATE	TIME	STATION
Lapeer	Aug. 3	7:30 a. m. to noon	G. T.	Powers	Aug. 14	8:20 p. m. to 7:00 a. m. Aug. 15	C. & N. W.
Isklay City	Aug. 3	12:20 to 2:20 p. m.	G. T.	Norway	Aug. 15	7:40 a. m. to 10:40 a. m.	C. & N. W.
Oshtemo	Aug. 3	2:25 to 4:55 p. m.	G. T.	Iron Mountain	Aug. 15	10:55 a. m. to 2:00 a. m. Aug. 17	C. M. & St. P.
Port Huron	Aug. 3	5:20 p. m. and remaining all day	G. T.	Sidney	Aug. 17	4:30 a. m. to 6:00 a. m.	D. S. & A.
		Tuesday, Aug. 4	P. M.	Bannock	Aug. 17	9:20 a. m. to 12:20 p. m.	D. S. & A.
Conover	Aug. 5	8:50 a. m. to 9:50 a. m.	P. M.	Trout Creek	Aug. 17	3:00 p. m. to 4:00 p. m.	D. S. & A.
Comerville	Aug. 5	9:15 a. m. to 10:15 a. m.	P. M.	Sidney	Aug. 17	6:00 p. m. to 4:30 a. m. Aug. 18	D. S. & A.
Deshlerville	Aug. 5	10:45 a. m. to 11:45 a. m.	P. M.	McKee	Aug. 18	5:30 a. m. to 7:00 a. m.	Coppernager
Harbor Beach	Aug. 5	12:20 p. m. to 7:30 a. m. Aug. 6	P. M.	Greenland	Aug. 18	7:15 a. m. to 9:15 a. m.	Coppernager
Red Ass	Aug. 6	9:30 a. m. to 11:50 a. m.	P. M.	Palmdale	Aug. 18	10:20 a. m. to 12:00 noon	Coppernager
Shelburne	Aug. 6	12:50 noon to 2:00 p. m.	P. M.	South Range	Aug. 18	12:10 p. m. to 3:50 p. m.	Coppernager
Alcona	Aug. 6	2:20 p. m. to 3:20 p. m.	P. M.	Atlantic	Aug. 18	3:05 p. m. to 5:20 p. m.	Coppernager
Bay City	Aug. 6	5:45 p. m. no stop		Houghton	Aug. 18	5:15 p. m. to 7:20 a. m. Aug. 21	Coppernager
Tawas City	Aug. 6	7:20 p. m. to 10:00 a. m. Aug. 7	D. & M.	Dollar Bay	Aug. 21	7:45 a. m. to 9:45 a. m.	Coppernager
Ashtabula	Aug. 7	10:20 a. m. to 12:20 noon	D. & M.	Lake Linden	Aug. 21	10:00 a. m. to 12:00 noon	Coppernager
Harville	Aug. 7	1:00 p. m. to 2:00 p. m.	D. & M.	Laurium	Aug. 21	12:20 p. m.—stay all afternoon	Coppernager
Alpena	Aug. 7	2:50 p. m. to 11:50 p. m. Aug. 9	D. & M.	Calumet	Aug. 22	9:00 a. m. to 3:00 p. m. Aug. 23	Coppernager
Oshtemo	Aug. 10	1:15 a. m. to 10:00 a. m.	D. & M.	Houghton	Aug. 23	6:00 p. m. to 7:00 a. m. Aug. 24	D. S. & A.
Tawas	Aug. 10	10:10 a. m. to 11:10 a. m.	D. & M.	Chassell	Aug. 24	7:20 a. m. to 8:20 a. m.	D. S. & A.
Charboygan	Aug. 10	11:20 a. m. no stop		Baraga	Aug. 24	9:30 a. m. to 11:30 a. m.	D. S. & A.
St. Ignace	Aug. 11	9:00 a. m. to 1:00 p. m.	D. S. & A.	Michigan	Aug. 24	1:30 p. m. to 2:30 p. m.	D. S. & A.
Trout Lake	Aug. 11	2:15 p. m. to 4:15 p. m.	M. St. P. & R.	Isklay	Aug. 24	3:45 p. m. to 1:00 a. m. Aug. 25	D. S. & A.
Esquimaux	Aug. 11	5:15 p. m. to 8:00 p. m.	M. St. P. & R.	Negaunee	Aug. 25	11:15 a. m. to 1:15 p. m. Aug. 25	D. S. & A.
Mandistiquia	Aug. 11	9:05 p. m. to 12:01 Aug. 12	M. St. P. & R.	Marquette	Aug. 25	2:00 p. m. to 12:00 noon Aug. 26	D. S. & A.
Chadron	Aug. 12	2:15 p. m. to 7:15 p. m.	M. St. P. & R.	Newberry	Aug. 26	3:50 p. m. to 4:50 p. m. Aug. 26	T. S. & A.
Esquimaux	Aug. 12	7:45 p. m. to 12:20 p. m. Aug. 13	C. & N. W.	South St. Marie	Aug. 26	5:50 p. m. to 10:00 a. m. Aug. 28	D. S. & A.
Bark River	Aug. 13	12:55 p. m. to 1:55 p. m.	C. & N. W.	Brimsley	Aug. 28	8:40 a. m. to 10:40 a. m. Aug. 28	D. S. & A.
Spaulding	Aug. 13	2:15 p. m. to 2:15 p. m.	C. & N. W.	St. Ignace	Aug. 28	2:00 p. m.	D. S. & A.
Powers	Aug. 13	3:20 p. m. to 7:15 a. m. Aug. 14	C. & N. W.	Mackinaw City	Aug. 28	3:15 p. m. to 10:15 p. m.	G. R. & I.
Stevenson	Aug. 14	7:55 a. m. to 9:55 a. m.	C. & N. W.	Comstock Park	Aug. 29	6:30 a. m.	G. R. & I.
Meonine	Aug. 14	10:25 a. m. to 7:00 p. m.	C. & N. W.			Remains during West Michigan State Fair	State Fair

Special demonstrators will accompany this train and will explain the exhibits and answer questions.
Literature on all subjects freely distributed.

THE GREATEST EDUCATIONAL EXHIBIT THE STATE OF MICHIGAN HAS EVER SHOWN

REMEMBER THE TIME REMEMBER THE PLACE REMEMBER THE DATE

The entire railroad equipment and transportation of this exhibit is furnished free by the railroads and the Pullman Car Company, operating in this state, through the special kindness of Mr. J. E. F. Baghart, Pres., and Mr. W. B. Wood, Gen'l Manager, U. R. & L. Railway, and the Michigan Railroad Commission.

JOHN L. BURKART,
Secretary State Board of Health.

JAMES W. HELME,
Dairy and Food Commissioner

Specimens of advertising and pictures of window displays are in evidence and show that they are plainly gotten up to deceive.

An extensive exhibit on Tuberculosis in Dairy cattle is another feature which has been improved upon. Many specimens of meat from tubercular animals have been secured and are put up in glass jars so they can be seen at their worst. This exhibit is in charge of an expert on tuberculosis in cattle from the United States Department of Agriculture. A lecture on this important topic is given at each stop.

Another feature which is of great interest to Dairymen is the arrangement and plans of the model dairy house. Three rooms have been partitioned off in the car, each one to represent a room in a small dairy house. Each room is fully equipped with all the modern dairy apparatus necessary for the production of clean milk. That much dirty milk finds its way to the market is graphically illustrated by showing cotton pads containing the filth and dirt taken from this popular beverage.

That Mother's Milk is the only milk for infant feeding is tellingly brought home by a new model entitled "Mother's Milk for Mother's Babes"—"Cow's Milk for Calves."

A new model illustrating the dangers of the common house fly is a departure from the many models seen on this subject and is very ingeniously gotten up. Placards condemning this dangerous pest are everywhere in evidence.

The telling work of the Pure Food Commission has been so much in evidence during the past year that this car attracts much attention.

The Health and Food Special now touring the State spent the entire day, August 3d, in Port Huron. Several thousand people visited the exhibits during the day and evening. The two cars are exceptionally arranged and cannot fail to bring home many important facts on health, sanitation, pure food, pure medicines and pure milk.

Dr. Duff, health officer of Port Huron said, "These exhibits will do more for sanitation and civics than tons of literature and dry talks."

Over 300 people turned out to view the exhibits at Deckerville and were greatly interested. It is not necessary to say that there is a healthy sanitary sentiment at this place.

At Harbor Beach the home of Deputy Dairy and Food Commissioner, B. B. Lincoln, the exhibits were viewed by thousands of people and the interest shown was exceptional. Harbor Beach has no sewerage system and for that reason is menaced by insanitary conditions. Dr. Armitage of that city hit the nail on the head when he said, "The trouble with the people is that they spend thousands of dollars for 'repair' and hundreds of dollars for 'prepare.'"

Henry Ford the Detroit Auto manufacturer visited the train at Harbor Beach. He took great interest in inspecting the exhibits, spending considerable time in both cars. He heartily endorsed the movement undertaken by the two State Departments, for spreading information on these important topics in this manner.

The Health and Food Special Train is on its way to the Copper Country. For the past few days the Special has been slowly making its way along the Minneapolis, St. Paul & Sault Ste. Marie and the Chicago & Northwestern Railroads. Friday the train was in Gladstone and Escanaba. The enthusiasm and interest was exceedingly gratifying. Crowds of people greeted the train at both places. Favorable comments were heard on all sides.

The exhibit on Fake Cure-alls, Fake medicines and Fake Beauty Remedies attracted attention. That people pay \$1.00 for a bottle of sugar and water for a Catarrh Cure or \$2.00 for a small vial of sugar pellets to cure appendicitis is clearly illustrated. Epsom Salts colored pink and perfumed are sold as a complexion remedy. Borax put up in a neat package and clothed with a fancy name brings 75 cents as a shampoo powder. The value of testimonials is demonstrated. Testimonials are shown that tell how five people recovered from consumption by the use of a consumption cure. All five are now in their graves but their testimonials read that they were cured.

Dr. A. H. Miller, Health Officer, Gladstone, said: "The Health and Food Special Train is the best object lesson on pure food and sanitation my people ever had a chance to learn."

A mechanical demonstrator shows how one baby out of every 7 born dies before it reaches the second year of its existence. Advice to mothers on the proper care of infants and bulletins on this important topic are freely distributed.

Everybody is interested in the extermination of the fly. That flies are born in filth, live in filth and carry filth to your food and to your sickrooms is clearly illustrated by means of models on this subject. Bulletins are given away telling you how to prevent flies from breeding in manure piles and other places.

The exhibit on tubercular infected meat and the lecture given by Dr. E. J. McLaughlin, Federal Meat Inspector, who is in charge of this exhibit created enthusiastic attention. Specimens of the various organs of both cattle and swine are prepared in a very unique manner and cannot fail to create interest among dairy farmers and others that will eventually wake them up to the fact that this disease must be reckoned with in the promotion of dairying.

Cloverland is the coming Dairy country of Michigan. Great interest was shown in the exhibit on Dairying. Three rooms have been partitioned off in the car. They represent the interior arrangement of a small dairy house. All are equipped with the latest utensils for securing clean milk. A practical model cow stall that can be built by anybody and that will keep cows clean is shown.

The typhoid death rate of Escanaba has been very high. It was due to the contaminated water supply. Escanaba will soon have a hypochloride plant for sterilizing the water. A new sewage disposal plant will be installed. A movement for a municipal garbage disposal plant has been started. Mayor Chatfield of Escanaba said: "This exhibit brings a matter to the attention of our people the value of which cannot be overestimated."

Mrs. A. L. Ryall, the only lady State Food Inspector in the Northern Peninsula in commenting on the exhibit said: "This exhibit is the greatest educational exhibit that I have ever had the pleasure of visiting." Mrs. F. L. Andrews, President of the Escanaba Woman's Club said: "There is so much to learn in these two cars on Pure Food and Sanitation that I wish you could stay here a week instead of a day."

The Health and Food Special Exhibit train is now in the Copper Country. The train arrived in Houghton, Tuesday evening, and remained all day Wednesday.

Many Houghton residents visited the train during the afternoon and evening and expressed themselves as well pleased with the exhibits. The train moved to Hancock, Thursday a. m. A record-breaking crowd was on hand at Hancock. It was estimated by the officials in charge of the train that 2,000 people viewed the exhibits after 7 o'clock in the evening. The enthusiasm and interest shown by the people of Hancock shows that they are eager to be up to the minute on all matters pertaining to the health of the community.

The people of Houghton County were greatly interested in the exhibit on weights and measures. The State Official in charge of this exhibit demonstrated clearly the necessity of having a county sealer. Many faulty weights and scales, short measures, dented measures, etc., are shown that clearly demonstrate how the consumer is defrauded. Milk and cream bottles that are 1-2 ounces short on every pint are shown. Liquid measures that are sometimes used to measure such commodities as navy beans, peas, etc., instead of the dry quart measure, show how the consumer is cheated out of many dollars during the year. A scale that was found in a meat market by the inspector which registers seven and a half pounds when only five pounds are placed on the pan, is among the many interesting things in this exhibit. That the retailer is equally interested in having a county sealer to protect him from loss is demonstrated by showing a gallon measure found in a grocery store that nets the retailer a loss of two and three quarters gallons on every barrel. Houghton is the second richest county in the state and it seems that they can well afford a county sealer. The points brought out by this exhibit clearly demonstrates that the salary of the sealer would be saved many times over.

The Copper Country people were greatly interested in the milk exhibit; dirty cans that are used to transport cream and milk from the country to the city are shown. That much filth and dirt finds its way into milk is very vividly illustrated by showing cotton pads containing the dirt and barn-yard refuse that has been separated from milk.

The laboratory exhibit shows how the bacteria in dirty milk are determined. This exhibit also clearly demonstrates that the proper pasteurization of milk kills all bacteria. The comparison of the bacterial content of clean milk with that of dirty milk is clearly brought out. By the aid of two microscopes, actual living typhoid and tuberculosis germs are shown.

That the death rate among children under two years of age, due to diarrhoeal enteritis in Houghton county is greater than that of the state is graphically illustrated by means of statistical charts. The

health officials attributed this to impure milk. On the other hand the death rate of the diseases of pneumonia, tuberculosis, typhoid fever, diphtheria and scarlet fever is shown to be less than that of the state for the year 1913. Charts show that cancer is on the increase in Michigan but that the death rate from typhoid fever and tuberculosis are on the decrease. Pulmonary tuberculosis decreased about eight per cent.

A well model shows clearly the dangers of drinking water taken from shallow or surface water wells. A great many people have the wrong idea of the purifying qualities of sand and gravel through which their shallow wells are sunk. The nitrifying bacteria and the oxygen of the air are the purifying agents. These agents are not found in the soil to depths greater than four feet.

Dr. Abrams of Hancock said of the train: "The people of the state are repaid a thousand fold by the good you are doing them with this train."

The State-wide tour of the Health and Food Special Train was resumed again Friday morning. The train left Bay City making its first stop at Tawas City. A good sized crowd visited the cars at this place. Dr. Crane, Health Officer, said: "This exhibit train is a wonder. I wish you could spend two days here instead of two hours."

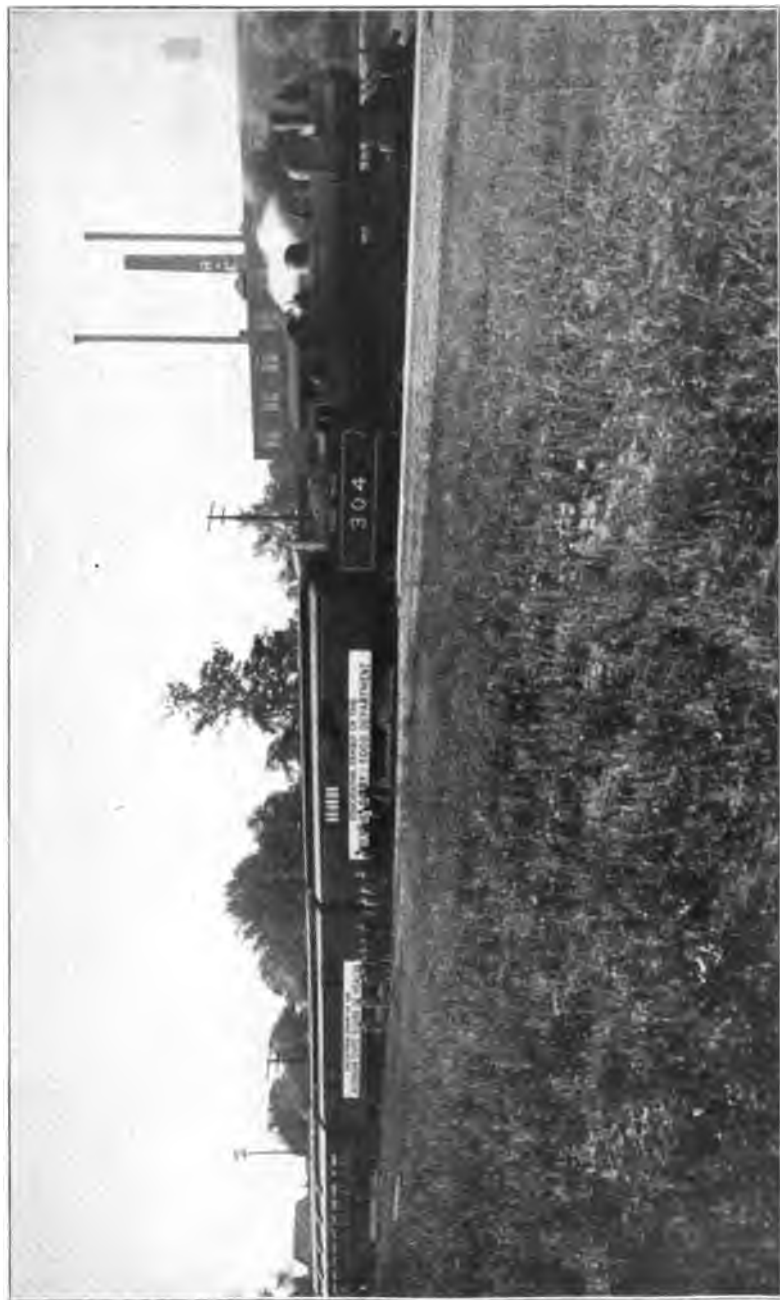
AuSable and Harrisville were included in the stops Friday. Crowds greeted the train at both places and were very enthusiastic.

The train remained all day Saturday and Sunday in Alpena. The cars were thronged with crowds the entire two days. Alpena County has a sealer of weights and measures and the crowds were greatly interested in the weights and measures exhibit. Scales that register 10 lbs. when only 7 pounds are placed on the pan illustrates how the consumer pays for something he doesn't get. The amount of loss when liquid measures are used to measure beans and other dry commodities is very vividly shown. That the old fashioned 2 quart fruit jar is shown to be 1-2 pint short is a surprise to all housewives.

Alpena is greatly interested in the methods for the prevention of typhoid fever, the prevalence of which is due to their contaminated water supply. The health officials have recommended a mechanical filtration plant to do away with this evil.

Owing to the fact that it is a great lumber center the Michigan tuberculosis shack created much attention and hundreds of bulletins describing it were carried away.

Mayor Comstock entertained the Health and Food Officials at a dinner at the Country Club, Friday evening. He said of the train: "I am astonished at the simple way you have of showing things in those two cars. You certainly are doing the people of the state of Michigan a wonderful service."



HEALTH AND FOOD SPECIAL, AUGUST 2, 1914.

LIGHTWEIGHTS, HEAVYWEIGHTS AND SAP.

BY JAMES W. HELME.

Dr. Lewis Baker of Ohio has joined the Mae Martin class in Michigan and through advertisements in the leading dailies is answering all correspondents, mythical and otherwise, with remedies for most of the diseases that human flesh is heir to.

In a recent ad "Kit" writes she is in danger of qualifying for a place in a side show as a living skeleton and becoming a real kitten and she suffers from headaches.

The Doctor advises a "thorough course of Hyponuclane Tablets." Our chemist has examined Hyponuclane Tablets and was unable to identify any active drug or drug principles.

These tablets when placed in a 3% solution of Hydrochloric Acid (which is the natural acid of the stomach) required over 96 hours to dissolve. It looks like "Kit" might trade off her headaches for stomach aches. Ninety cents is the price of sixty three-grain tablets.

"Miss T. R." is evidently afraid she may qualify as the fat woman in the side show. She confesses to the modest weight of 190 pounds and still gaining. She wants the Doctor to carve, medically, 30 pounds from her robust form. The Doctor advises the regular use of 5 grain Arbolene Tablets. Analysis of these tablets show that the active principle is the Thyroid Gland of the sheep. The National Dispensatory says that Thyroid Gland when used in quantities sufficient to cause decrease in weight often causes ill health, changes the skin to a sallow hue and also causes wrinkling of the skin. If "Miss T. R." wishes to swap her 30 lbs. of healthy flesh for a skin like a Chinaman and wrinkles like a Merino sheep, thyroid gland will probably have a tendency to produce that result. But just take it from us, "Miss T. R.," that if you wish to reduce flesh, just stop eating. Any Artic explorer can give testimonials to that effect.

"Maud" has got a real affliction in a bad case of catarrh. Her nose runs and her breath smells until she is obliged to eschew all osculatory performances with any gentleman callers. But the Doctor has the stuff for "Maud," the afflicted. All she has to do is to dissolve half a teaspoon of Villane powder in a pint of warm water two or three times a day and "Presto Change," back comes health and suitors and the pocket handkerchief can be used for a napkin.

Our chemist says that Villane powders on examination were found to be composed of common salt 40%, Baking Soda 35%, Borax 15% and Salicylate of soda 10%. Selling price 50c. Estimated cost 2c. Mix your own dope, "Maud," and for 50c you will have a barrel full of solution, enough to cure all the running noses in an average sized village—provided it works.

STATE ANALYST'S REPORT



July 1, 1915.

Hon. James W. Helme, State Dairy and Food Commissioner, Lansing,
Michigan:

Dear Sir:—I herewith beg to report on the work done in the laboratory of the Department during the fiscal year beginning July 1st, 1914, and ending July 1st, 1915.

A total of 2,195 samples were analyzed and reported on. Of this number 1,292 included foods, food colors, beverages, linseed oils, preservatives, etc. 278 were feeding stuffs and 585 were drug samples. 445 food samples, or 34.4% were found to be adulterated or misbranded, or formed the part of an illegal sale. The samples that were so classed appear in the following summary and are more fully explained in the appended report. The remaining 735 samples were found to be adulterated and therefore appear only in the genral summary. The 585 samples of drug preparations are fully explained and commented upon in the report of the Drug Analyst. The 278 samples of feeding stuffs appear in the appended report in tabulated form.

It will be noted that in the general summary the samples are classified as adulterated, misbranded or illegal. In order that these classifications may be clearly understood, an explanation will not be out of place. Formerly but two classifications were employed by the laboratory, viz., adulterated and misbranded, but we found that these two did not properly classify all samples. Therefore, we added a third classification under the caption, "Illegal." All samples that are in violation of the law might be termed illegal, but here it has a different meaning. The law defines when a sample is adulterated and when it is misbranded, but the term illegal is applied to a product that in itself is not adulterated or misbranded, but does form the part of an illegal sale in violation of the law. An inspector of the department buys a package of oleomargarine. He sends it to the laboratory as oleomargarine for the purpose of ascertaining whether the sample is what it is purported to be and whether it is adulterated within the meaning of the law. If we find it to be pure oleomargarine, uncolored and properly labeled as far as the sample is concerned, it could be passed. However, if the inspector has reported that no sign was displayed in compliance with the law in the place where this sample was obtained, we then classify this sample as illegal for the reason that it has entered into a part of the transaction when the law was violated for then the sample of oleomargarine was kept for sale, offered for sale and sold in violation of the law.

The 2,195 samples herewith reported do not represent the entire work of the laboratory. We are constantly carrying on special and experimental work that is not included in the official report of the department. During the year just closed we have completed an extensive experiment to determine the variation in weight of flour when stored in different sized packages ranging from a 5 lb. package to a 50 lb. package.

The laboratory force are all members of the Association of Official Agricultural Chemists. This Association formulates and perfects the method of analysis used in the food and drug laboratories throughout the entire United States. Each member of the laboratory has done considerable experimental work in co-operating with other chemists throughout the United States in perfecting various methods. As Associate Referee in Saccharin Products the writer has completed a report on the "Methods for the Detection of Artificial Invert Sugar in Honey," that has required considerable time and study. This Co-operative work is invaluable to the members of the laboratory force, as it keeps us in touch with the latest methods of analysis and gives us an opportunity to compare the accuracy of our work with that of other laboratories.

Various members of the laboratory force have at different times greatly assisted the Weights and Measures Division in their work by furnishing technical and scientific assistance in the matter of testing and regulating, weighing and measuring devices, and furnishing evidence of fraud in the short weighing and measuring of commercial products. During the year a complete outfit for accurately calibrating Babcock glassware was installed in the laboratory and one member of the force has had charge of this work, devoting considerable time and attention to it. We now calibrate all Babcock glassware used in the Michigan creameries in this laboratory free of charge.

From year to year I have in my annual report to the Dairy and Food Commissioner pointed out that the salaries of the employees of this Division of the Department were wholly inadequate, especially those of the assistant chemists, also that the present law does not provide means whereby we can hire more than one assistant chemist although we are at present employing three. I have compared the salaries we pay our assistants with the salaries paid others doing the same kind of work in other states. I find that we pay the lowest salaries, not only in this Particular Division of the Department, but in fact in all divisions, of any similar department in the United States. We do, however, rank very high among other Dairy and Food Departments in the amount of work accomplished each year, and we are rated as a very efficient body in the control of foods and drugs. In fact, in our own state, a glance at the Michigan Manual for 1915 will show that the head of this Department is not as well compensated as the majority of deputies in other departments. Therefore, it seems that it is not asking too much of our legislature to amend this section of our law in order that we may employ chemists under their proper title and on a graded salary so that we can as one becomes more valuable through increased experience in food problems reward them for their endeavors. This plan is carried out in the commercial field and works effectively there, so I see no reason why it cannot be as effectively applied here.

My associates deserve commendation for their faithful attention to their duties and their efforts to detect fraud and adulteration in the food and drug products submitted to us.

Very truly yours,

F. L. SHANNON,
State Analyst.

SUMMARY OF SAMPLES EXAMINED.

Article.	Total.	Not found adulterated misbranded or illegal.	Found adulterated misbranded or illegal.
Apples.....	2	0	2
Apple butter.....	1	0	1
Baking powder.....	1	1	0
Beans.....	4	4	0
Butter.....	331	304	27
Buckwheat.....	2	2	0
Buttermilk.....	1	1	0
Candy.....	15	11	4
Canned fruit.....	8	4	4
Canned vegetables.....	4	0	4
Catsup.....	2	2	0
Cereal preparations.....	1	1	0
Cheese.....	3	2	1
Chili sauce.....	1	0	1
Cinnamon.....	1	1	0
Cloth.....	1	0	1
Cocoa.....	5	4	1
Coffee.....	2	2	0
Colors.....	2	2	0
Condensed milk.....	1	0	1
Corn syrup.....	2	0	2
Cranberries.....	20	1	19
Cream.....	74	70	4
Crushed fruit.....	1	1	0
Eggs.....	16	8	8
Evaporated milk.....	11	1	10
Figs.....	2	0	2
Flavoring preparations.....	23	13	10
Flour.....	5	1	4
Grapes.....	1	1	0
Hamburg steak.....	40	23	17
Honey.....	5	5	0
Horse radish.....	3	2	1
Ice cream.....	15	13	2
Jellies, jams, etc.....	1	0	1
Lard and lard compounds.....	41	15	26
Linseed Oil.....	34	5	29
Maple sugar.....	7	6	1
Maple syrup.....	5	3	2
Meat.....	8	6	2
Milk.....	317	225	92
Milk cans.....	7	0	7
Milk powder.....	1	1	0
Mustard.....	2	1	1
Mustard dressing.....	1	1	0
Nuts.....	8	0	8
Oleomargarine.....	14	1	13
Olives.....	4	1	3
Oysters.....	12	10	2
Pea seed.....	1	0	1
Pickles.....	1	0	1
Pop corn.....	2	2	0
Pork.....	1	0	1
Potatoes.....	13	1	12
Preserves.....	4	3	1
Preservatives.....	3	2	1
Rice.....	1	0	1
Salmon.....	1	0	1
Sausage.....	138	50	88
Soft drinks.....	10	10	0

SUMMARY OF SAMPLES EXAMINED.—*Concluded.*

Article.	Total.	Not found adulterated misbranded or illegal.	Found adulterated misbranded or illegal.
Soup.....	1	0	1
Sugar cakes.....	3	2	1
Sweet cider.....	1	0	1
Sweet pickles.....	1	0	1
Syrup.....	26	12	14
Table sauce.....	1	0	1
Turpentine.....	3	0	3
Vinegar.....	13	10	3
Totals.....	1,292	847	445

REPORTS ON SAMPLES.

APPLES.

Two samples of apples were received from the Inspector in the fruit district of the state. It seems that one Fred E. Lull of Lacota, sold some apples to a commission man in Kalamazoo. The barrels were marked "No. 1 Northern Spies." The interior of the barrels, however, was found to be filled with small apples very much inferior to those placed in the ends. A complaint was made, charging the packer with a violation of the fruit and vegetable law which specifically prohibits the "facing" of a barrel of apples. The case was tried in Justice Court in Paw Paw, Van Buren county, and the jury returned a verdict of guilty. A fine was imposed and collected. This is the first case of this kind that the Department has had but it seems that this custom of "facing" barrels and baskets of fruit is quite common in some sections of the state. It is only by such steps as were taken in this instance that this fraudulent practice can be stamped out.

No. 31384, P-1370. Sample of apples sold by Fred E. Lull, Lacota. Apples were sold under false representation.

No. 31385, P-1369. Sample of apples sold by Fred E. Lull, Lacota. Apples were sold under false representation.

APPLE BUTTER.

No. 33250, I-509. Sample of apple butter manufactured by A. R. & H. G. Gross, Nashville. Misbranded in that the net weight is not stated on the package.

BUTTER.

Three hundred thirty-one samples of butter have been examined during the year. Twenty-seven of these were found to be in violation of the law. The majority of these samples were not, however, examined

for the purpose of the detection of fraud, but to furnish official tests to the Dairy Manufacturing Division for their official scoring contests. Formerly this work was handled by that Division but as their work grew it was thought advisable to have all official tests of butter used in scoring contests made by the chemists of the department, hence this work was added to our duties. It will be noticed that the most of the 27 samples of butter were in violation of the law for the reason that they were oleomargarine, although purchased as butter. Prosecutions were instituted in all these cases. Those started in sections of the state other than Detroit have been disposed of, but the cases in Detroit are still awaiting trial. The old law permitting "Renovated Butter" to be labeled either "Renovated" or "Process" butter was repealed by the last session of the legislature, upon recommendation of this department, and will become effective August 23, 1915. The new law provides that all renovated butter shall be labeled as renovated butter and that restaurants and hotels using the product shall place a sign in a conspicuous place bearing the legend "Renovated Butter used here."

No. 30615, F-180. Sample of butter procured from the Botbyl Grocer Co., Grand Haven. Sample is Renovated butter. Package not stamped.

No. 30747, U-5. Sample of butter procured from Edward Roulo, 1750 Michigan Ave., Detroit. Sample is oleomargarine artificially colored.

No. 30853, M-8. Sample of butter procured from Wm. A. Lewis, 205 Second St., Detroit. Label states "Guaranteed Pure Creamery Butter. Michigan Special Brand." Sample is renovated butter.

No. 30854, V-99. Sample of butter manufactured by the Almont Creamery Co., Almont, and procured from Wm. Elevier, 161 Brainard St., Detroit. Label "Guaranteed Strictly Fresh Belle Isle Creamery Butter." Packing stock unfit to eat. Not strictly fresh creamery butter.

No. 30855, V-100. Sample of butter manufactured and sold by D. O. Wiley, Griswold-Woodbridge, Detroit. Labeled "Fancy Creamery Butter. This butter is churned from purest cream and in this package will retain its purity and sweetness." Low grade table butter. Not fancy creamery.

No. 30871, U-13. Sample of butter procured from W. H. Berk, 304 Linwood Ave., Detroit. Sample is renovated butter.

No. 30878, M-13. Sample of butter procured from J. B. Saels, 532 Dix Ave., Detroit. Sample is oleomargarine artificially colored.

No. 31015. Unofficial sample of butter. Sample is renovated butter.

No. 31293, K-2. Sample of "butter" procured from Fred Roulo, 1750 Michigan Ave., Detroit. Sample is oleomargarine.

No. 31294, K-3. Sample of "butter" procured from Fred Roulo, 1750 Michigan Ave., Detroit. Product is oleomargarine artificially colored.

No. 31295, K-4. Sample of "butter" procured from Wm. Lewis, 596 Dix Ave., Detroit. Product is oleomargarine artificially colored.

No. 31296, K-5. Sample of "butter" procured from John B. Saels, 532 Dix Ave., Detroit. Product is oleomargarine artificially colored.

No. 31298, K-7. Sample of "butter" procured from Alec M. Wright, 819 Michigan Ave., Detroit. Product is oleomargarine artificially colored.

No. 31299, K-8. Sample of "dairy butter" procured from the Detroit

Tea & Butter Co., Broadway Market, Detroit. Sample is renovated butter. Package not stamped.

No. 31300, R-9. Sample of "dairy butter" procured from H. B. Miles, 320 Grand River Ave., Detroit. Product is oleomargarine.

No. 31301, R-10. Sample of "dairy butter" procured from Frank Arens, 531 12th St., Detroit. Product is oleomargarine artificially colored.

No. 31302, R-11. Sample of "butter" procured from W. H. Green, 405 Michigan Ave., Detroit. Product is oleomargarine artificially colored.

No. 31303, V-3. Sample of "butter" procured from Chas. Moral 916 Grand River Ave., Detroit. Product is oleomargarine artificially colored.

No. 31304, V-4. Sample of "butter" procured from Thos. M. Faust, proprietor of White Front, 168 Michigan Ave., Detroit. Product is oleomargarine artificially colored.

No. 31455, B-217. Sample of "butter" procured from Acre Trocrido, Sault Ste. Marie. Sample is renovated butter. Package not stamped.

No. 31679, I-410. Sample of "butter" procured from James Davern of the Canadian News Co., Durand. Product is oleomargarine artificially colored.

No. 31687, V-11. Sample of cooking butter procured from Goudie Market Co., Detroit. Product is renovated butter.

No. 31853, G-1158. Sample of "butter" procured from William Burt, Iron Mountain. Product is oleomargarine artificially colored.

No. 31854, G-1162. Sample of "butter" sold by Elgin Butter Market, Lewis Morris, prop., 2235 W. Lake St., Chicago, and procured from Wm. Burt, Iron Mountain. Product is oleomargarine artificially colored.

No. 33346, G-1186. Sample of "butter" sold by Miller Bros., Negaunee. Product is oleomargarine artificially colored.

No. 33862, G-1201. Sample of butter procured from Martenson Bros., Menominee. Sample is renovated butter not stamped.

No. 33865, G-1204. Sample of butter procured from Louis Menacher, Menominee. Sample is renovated butter not properly labeled.

CANDY.

No. 30851, P-1214. Sample of candy (Fruit Jellies) manufactured by A. G. Morse, Chicago, Ill., and procured from S. C. Kinsel, Detroit. No fruit present. Sample consists of assorted gum drops. Misbranded.

No. 31278, G-1131. Sample of candy procured from Geo. Grammes, Lake Linden. Sample has very rancid odor and taste due to old cocoanut used in its manufacture.

No. 33573, B-263. Sample of candy procured from Robert Shafer, Petoskey. Candy is wormy and unfit for human consumption.

No. 33951, B-282. Sample box candy put up by the Walker Candy Co., Muskegon, and procured from A. Wildman & Son, Traverse City. Net weight not stated on the box. Misbranded.

CANNED GOODS.

We examined 12 samples of canned goods, eight samples of vegetables and four samples of canned fruits.

Six cans of pumpkin were submitted by a Detroit Inspector. These

samples represented a lot of about 3,500 cans of pumpkin that were in storage in the Detroit Terminal Storage Co.'s warehouse. An examination of the cans and their contents showed that there were evidences of decomposition and putrefication changes taking place which rendered them unfit for human food. The goods were condemned and seized and upon an order from the court the entire lot was destroyed.

It was surprising to find any canned products still on the market containing copper sulphate. Two such samples were submitted by the inspector in the Northern Peninsula of the state. Copper sulphate is commonly known as "blue vitrol" and was formerly used extensively in canned vegetables, especially peas and beans, to bring out the green color and make it permanent. The Federal Government investigated this practice and as a result the Referee Board of Consulting Scientific Experts found that the use of copper sulphate rendered foods injurious to health. Accordingly on December 26, 1912, the United States Department of Agriculture issued a decision forbidding its use in foods. Prior to the decision our domestic canners had seen the hand writing on the wall and had discontinued its use. Only imported goods were found to contain copper sulphate. The two samples submitted were the only ones found this year and these will probably be the last.

No. 30708, G-1114. Sample of peas handled by E. M. Lieblin, Hancock, as jobber and procured from John B. Seratti, Baraga. Manufacturer's name and address not stated. Misbranded.

No. 31258, I-367. Samples of canned pumpkin procured from the Detroit Terminal Storage Co., Detroit. The contents of these cans show evidence of decomposition and purifactive changes which render them unfit for human food. Also contains an excessive amount of tin or salts thereof.

No. 31259, I-368. Sample of canned plums manufactured by the Thomas Canning Co., Grand Rapids, and procured from The Edward Henkel Co., Detroit. The can is what is known to the commercial trade as a leaker. Net weight not stamped on label.

No. 31503, B-220. Sample of canned tomatoes sold by Frank C. Holmes & Son, Alpena, and procured from W. A. Cowie, Mikado. Net weight not stated on the label. Misbranded.

No. 31701, G-1160. Sample of Hillsdale brand Canned Pineapple manufactured by the Emery Food Co., Chicago, and sold by E. M. Lieblin, Calumet. Misbranded in that the word "about" is used in connection with the statement of net weight. Short weight.

No. 33108, F-235. Sample of canned peaches manufactured by J. M. Thompson & Co., Philadelphia, Pa. Misbranded in that the net contents is not stated on the can.

No. 33746, G-1195. Sample of canned peas procured from E. R. Hixson, Houghton. Product contains copper sulphate. Net contents not stated on the label.

No. 33747, G-1196. Sample of canned mixed vegetables procured from E. R. Hixson, Houghton. Product contains copper sulphate. Net weight not stated on the label.

CHEESE.

No. 31502, B-219. Sample of Milk Maid Cheese sold by H. Hamstra & Son, Chicago, and procured from C. H. McKim, Alpena. Manufacturer's name and address, also net weight not stated on the label. Misbranded.

CHILI SAUCE.

No. 31415, I-387. Sample of Chili Sauce manufactured by Lutz & Scramm Co., Pittsburgh, Pa., and procured from O'Connor Bros., Pontiac. Net weight not stated on the label. Misbranded.

CLOTH.

A sample of cloth was submitted by the inspector in the Northern Peninsular. The cloth was sold to the Inspector for 2 yards, but upon measuring same at the Laboratory with a standard measure, it was found to be $2\frac{1}{2}$ inches short of 2 yards. A complaint was made, charging the defendant with a violation of the Weights and Measures Act and a fine collected.

No. 31452, B-214. Sample of 2 yds. cloth procured from Samuel Winberg, Sault Ste. Marie. Amount short $2\frac{1}{2}$ inches.

CRANBERRIES.

Twenty samples of cranberries were examined. 19 of these were found to be in violation of the State Weight and Measure Act.

It seems that it has long been the practice of cranberry jobbers and dealers to sell cranberries to the retailer by the barrel, putting 100 lbs. in a barrel. The consumer, on the other hand, naturally refers to cranberries and like commodities in terms of quarts and pints instead of pounds and ounces. The retailer in order to come out whole on a barrel has therefore been put to the necessity of selling cranberries by the liquid quart. This having become quite an established custom, we find most of the samples of cranberries are secured in this manner. Cranberries are a dry commodity and under the terms of the net weight and measure clause, should be measured by the dry quart or by the pound. A liquid quart of cranberries weighs approximately one pound while a dry quart of cranberries according to the Michigan statute of 40 lbs. per bushel, weighs 1 lb. and four ounces. It will be noted that 19 of the samples submitted were sold by the quart and were measured in a liquid quart.

No. 31393, B-187. One quart cranberries procured from Joseph Fuoco, Sault Ste. Marie. Sample is $4\frac{3}{7}$ oz. short weight.

No. 31439, B-179. Two quart cranberries procured from Wm. J. Armstrong, Sault Ste. Marie. Amount short by measure 13 oz. Sample is short weight and consists wholly or in part of decomposed, vegetable substance.

No. 31556, G-1150. One quart cranberries procured from C. Lerebore, Jr., Escanaba. Short weight. Sample was sold by liquid measure.

No. 31558, G-1152. One quart cranberries procured from John A.

Stromberg, Escanaba. Short weight. Sample was sold by liquid measure.

No. 31559, G-1153. One quart cranberries procured from the Royal Grocery Co., Escanaba. Short weight. Product was sold by liquid measure instead of dry measure.

No. 31398, B-195. One quart cranberries procured from Henry Sterling, Sault Ste. Marie. $6\frac{3}{4}$ oz. short weight.

No. 31700, G-1159. One quart cranberries procured from Henry Simonen, Calumet. Sample is not a full quart. Evidently measured in a liquid quart measure.

No. 31742, I-415. One quart cranberries procured from Ella E. Butler, Jackson. Short measure. Measured in liquid quart instead of dry quart measure.

No. 31745, I-418. One quart cranberries procured from B. D. Legg, Jackson. Short measure. Measured in liquid quart instead of a dry quart measure.

No. 31748, I-420. One quart cranberries procured from Richard Howland, Jackson. Short measure. Measured in liquid quart instead of a dry quart measure.

No. 31750, I-422. One quart cranberries procured from Myron Stillwell, Jackson. Short measure. Measured in liquid quart instead of a dry quart measure.

No. 31751, I-423. One quart cranberries procured from W. Kilgallin & Co., Jackson. Measured in a liquid quart instead of a dry quart measure.

No. 31752, I-424. One quart cranberries procured from Wm. H. Meder, Jackson. Short measure.

No. 31820, I-454. One quart cranberries procured from John B. Hagerman, Fowlerville. Sample measured in liquid quart instead of a dry quart measure.

No. 31821, I-455. One quart cranberries procured from Claude Goodrich, Fowlerville. Sample consists wholly or in part of decomposed vegetable substance.

No. 31910, I-476. One quart cranberries procured from Sol Schluchter, Pigeon. Sample measured in a liquid quart instead of a dry quart measure.

No. 31915, I-479. One quart cranberries procured from Joe Crosse, Hillsdale. Sample measured in a liquid quart instead of a dry quart measure.

No. 31935, G-1168. One quart cranberries procured from W. H. Scandling, Iron Mountain. Sample was measured in a liquid quart instead of a dry quart measure.

No. 31936, G-1170. One quart cranberries procured from Nelson & Carlson, Iron Mountain. Sample was measured in a liquid quart instead of a dry quart measure.

COCOA.

No. 33739, L-7. Sample of cocoa sold by Schwartz Bros., Saginaw, and procured from N. W. Flanagan, Flint. Misbranded in that the manufacturer's address is not stated on the label.

CRACKERS.

No. 31826, I-460. Sample of Aztec Crackers manufactured by the Aikman Baking Co., Port Huron, and procured from Lewis H. Cooper, Fowlerville. Misbranded in that the net weight of contents is not stated on the package.

CORN SYRUP.

No. 30987, T-43. Sample of Karo Corn Syrup manufactured by the Corn Products Co., Chicago. Misbranded in that the net volume is stated in terms of pounds instead of pints, quarts, etc.

No. 30988, T-44. Sample of Karo Corn Syrup manufactured by the Corn Products Co., Chicago. Misbranded in that the net volume is not stated in terms of pints, quarts, etc.

CONDENSED MILK.

No. 31557, G-1151. Sample of condensed milk sold by the Manufacturers and Retailers Co., Chicago. No directions given for diluting. Misbranded.

CREAM.

The Michigan Standard for cream is 18% butter fat. It is notable that of the seventy-four samples examined we found only four below this standard.

No. 31519, G-1149. Sample of cream procured from M. Henrickson, Escanaba. Butter fat 15.6%. Below standard.

No. 31869, G-1163. Sample of cream from Mrs. John Johnson, Daggett. Butter fat 16.25%. Below legal standard in butter fat.

No. 31870, G-1164. Sample of cream from Robert Larson, Daggett. Butter fat 16.0%. Below legal standard in butter fat.

No. 33261, G-1185. Sample of cream procured from J. J. Smoker, Ishpeming. Butter fat 15.5%. Below standard in butter fat.

EGGS.

Sixteen samples of eggs were examined; of this number eight were found to be adulterated. Six of these samples were frozen eggs and were taken from Detroit canners who were selling them to bakeries. The use of frozen eggs in a food product is not to be condemned, as one might think merely because they are frozen. It has been shown by the Federal Government that under proper conditions a very good article of food can be prepared with good frozen eggs, but the tendency among certain manufacturers is to break and freeze those eggs which have become so bad that it would be impossible to keep them otherwise. Such eggs when broken into a can and then frozen solid do not appear or smell bad, but when they are thawed out the odor of rotten eggs is at once apparent.

The six samples referred to above, while in the frozen condition, from all physical tests were apparently a wholesome article of food but when thawed out and examined both chemically and bacteriologically, we

found them to be adulterated in that they consisted wholly or in part of a decomposed, putrid and rotten animal substance. No record of a prosecution appears in connection with these samples, for the reason that these particular samples were connected with the grafting operations of some of your inspectors in Detroit, who were later apprehended and discharged.

No. 30713, V-85. Sample of canned eggs manufactured by S. Kady, Chicago, Ill., and procured from Chris Schmidt, Detroit. Consist wholly of rotten animal substance.

No. 30825, V-89. Sample of frozen eggs procured from Chris Schmidt, Eastern Market, Detroit. Sample consists wholly or in part of decomposed, putrid animal substance.

No. 30830, V-94. Sample of frozen eggs procured from Uller & Powers, 415 Russell St., Detroit. Odor rotten, Sample composed wholly or in part of decomposed, putrid animal substance.

No. 30832, V-96. Sample of frozen eggs procured from Uller & Powers, 415 Russell St., Detroit. Sample consists wholly or in part of decomposed, putrid animal substance.

No. 30833, V-97. Sample of frozen eggs procured from Uller & Powers, 415 Russell St., Detroit. Consists wholly or in part of decomposed, putrid animal substance.

No. 30852, M-7. Sample of frozen eggs procured from Chris Schmidt, Detroit. Sample consists wholly or in part of putrid, decomposed animal substance.

No. 31525, F-223. Eggs sold by Eli Raycraft, Alma, and procured from C. A. Sullivan. Eggs in last stages of decomposition. Absolutely unfit for food.

No. 33061, I-498. Sample of "Strictly Fresh Eggs" procured from C. F. Smith, 1174 W. Warren Ave., Detroit. Eggs are not strictly fresh, consisting wholly or in part of infected and tainted animal substance.

EVAPORATED MILK.

Eleven samples of evaporated milk were examined. A number of these were misbranded for the reason that the label did not state the directions for diluting in conformity with the wording of the statute. The law applying to this particular requires that the formula for extending the milk should be worded in the following terms: "By * * * * * adding parts of water to one part of the contents of this can a resulting milk product will be obtained which will not be below the legal standard for whole milk."

On March 26, 1915, a standard for evaporated milk was issued which reads as follows: "Condensed milk, evaporated milk, concentrated milk are the products resulting from the evaporation of a considerable portion of the water from the whole, fresh, clean, lacteal secretion obtained by the complete milking of one or more healthy cows, properly fed and kept excluding that obtained within fifteen days before and ten days after calving and contains, all tolerances being allowed for, not less than 25% of total solids and not less than 7.8% of milk fat."

No. 30675, G-1117. Sample of evaporated milk manufactured by the

Delavan Condensed Milk Co., Chicago, Ill. Misbranded for the reason that the label does not contain directions for diluting.

No. 30709, G-1115. Sample of Evaporated milk manufactured by the Hires Condensed Milk Co., Philadelphia, Pa. Misbranded. Directions for diluting are not in conformity with the statute.

No. 30730, E-103. Sample of Evaporated milk manufactured by the Sheboygan Evaporated Milk Co., Sheboygan, Wis. Directions for diluting not in conformity with the wording of the statute.

No. 33167, B-248. Sample of Globe Evaporated Milk Manufactured by the National Condensed Milk Co., Chicago, and sold by the National Grocer Co., Sault Ste. Marie. Misbranded in that the formula for diluting is not in conformity with the statute.

No. 33548, G-1190. Sample of evaporated milk manufactured by the Hebe Co., Chicago, and sold by Steele Wedeles Co., Chicago. Label is deceptive.

No. 33659, G-1192. Sample of evaporated milk manufactured by the Valecia Condensed Milk Co., Madison, Wis., and sold by the Peninsula Wholesale Grocery Co., Houghton. Formula for extension not in conformity with the statute. Misbranded.

No. 33660, G-1193. Sample of evaporated milk sold by Twohy Eimon Merc. Co., Superior, Wis., and procured from J. P. Donnelly, Ontonagon. Misbranded in that the net contents and formula for extension are not stated on the label. Adulterated in that the total solids and butter fat are below the standard for evaporated milk.

No. 33674, L-1. Sample of Gold Evaporated Milk manufactured by the Hires Condensed Milk Co., and procured from Max Hershburg, Bad Axe. Misbranded in that the net contents are not stated on the label and formula for extension is not in conformity with statute. Adulterated in that the butter fat and total solids are below the standard for evaporated milk.

No. 33748, G-1197. Sample of evaporated milk manufactured by Morris & Co., Chicago, and procured from J. J. Ruelle, Houghton. Misbranded. Formula for extension not in conformity with statute.

No. 33887, F-256. Sample of evaporated milk manufactured by the Sheboygan Evaporated Milk Co., Sheboygan, Wis., and procured from T. M. Ditmar Co., Grand Rapids. Below the standard for evaporated milk in butter fat and total solids.

FLAVORING PREPARATIONS.

Twenty-three samples of flavoring preparations were examined. Two of these were adulterated in that they were not pure Vanilla Extracts as stated, while eight were found to be misbranded.

Act No. 64, Public Acts of 1913, makes the United States Standards, therefore to comply with the law all flavoring preparations must be made to conform with these standards. Those samples that were classed as adulterated were so classed for the reason that they did not come up to the standard established by the United States Department of Agriculture. Those that are classed as misbranded are so classed for the reason that they did not conform to our labeling laws.

The standards are as follows:

A flavoring extract is a solution in ethyl alcohol of proper strength of the sapid and odorous principles derived from an aromatic plant, or parts of the plant, with or without its coloring matter, and conforms in name to the plant used in its preparation.

Almond extract is the flavoring extract prepared from oil of bitter almonds, free from hydrocyanic acid, and contains not less than one (1) per cent by volume, of oil of bitter almonds.

Anise extract is the flavoring extract prepared from oil of anise, and contains not less than three (3) per cent by volume of oil of anise.

Celery seed extract is the flavoring extract prepared from celery seed or the oil of celery seed, or both, and contains not less than three-tenths (0.3) per cent by volume of celery seed.

Cassia extract is the flavoring extract prepared from oil of cassia and contains not less than two (2) per cent by volume of oil of cassia.

Cinnamon extract is the flavoring extract prepared from oil of cinnamon, and contains not less than two (2) per cent by volume of oil of cinnamon.

Clove extract is the flavoring extract prepared from oil of cloves and contains not less than two (2) per cent by volume of oil of cloves.

Ginger extract is the flavoring extract prepared from ginger and contains in each one hundred (100) cubic centimeters, the alcohol-soluble matters from not less than twenty (20) grams of ginger.

Lemon extract is the flavoring extract prepared from oil of lemon or from lemon peel, or both, and contains not less than five (5) per cent by volume of oil of lemon.

Terpeneless extract of lemon is the flavoring extract prepared by shaking oil of lemon with dilute alcohol, or by dissolving terpeneless oil of lemon in dilute alcohol, and contains not less than two-tenths (0.2) per cent by weight of citral derived from oil of lemon.

Nutmeg extract is the flavoring extract prepared from oil of nutmeg, and contains not less than two (2) per cent by volume of oil of nutmeg.

Orange extract is the flavoring extract prepared from oil of orange, or from orange peel, or both, and contains not less than five (5) per cent by volume, of oil of orange.

Terpeneless extract of orange is the flavoring extract prepared by shaking oil of orange with dilute alcohol, or by dissolving terpeneless oil of orange in dilute alcohol, and corresponds in flavoring strength to orange extract.

Peppermint extract is the flavoring extract prepared from oil of peppermint, or from peppermint, or both, and contains not less than three (3) per cent by volume of oil of peppermint.

Rose extract is the flavoring extract prepared from otto of roses, with or without red rose petals, and contains not less than four-tenths (0.4) per cent by volume of otto of roses.

Spearmint extract is the flavoring extract prepared from oil of spearmint, or from spearmint, or both, and contains not less than three (3) per cent by volume, of oil of spearmint.

Thyme extract is the flavoring extract prepared from oil of thyme, or from thyme, or both, and contains not less than two-tenths (0.2) per cent by volume of oil of thyme.

Tonka extract is the flavoring extract prepared from tonka bean, with or without sugar or glycerine, and contains not less than one-tenth (0.1) per cent by weight of coumarin extracted from the tonka bean, together with a corresponding proportion of the other soluble matters thereof.

Vanilla extract is the flavoring extract prepared from vanilla bean, with or without sugar or glycerin, and contains in one hundred (100) cubic centimeters the soluble matter from not less than ten (10) grams of the vanilla bean.

Wintergreen extract is the flavoring extract prepared from oil of wintergreen, and contains not less than three (3) per cent by volume of oil of wintergreen.

No. 30771, V-87. Sample of Banner Vanilla Extract manufactured by the Banner Extract Co., Detroit. Product is adulterated for the reason that a dilute extract of vanilla has been mixed or packed with the true extract, thereby reducing, lowering and injuriously effecting its quality.

No. 31681, I-412. Samples of vanilla and lemon extracts manufactured by C. F. Saur Co., Richmond, Va., and procured from Sacks & Brock, Durand. Misbranded in that the net volume is not stated on the label.

No. 33014, I-490. Sample of Old Dutch brand Imitation Vanilla manufactured by the Wabash Baking Powder Co., Wabash, Ind. Net contents not stated on the label. Misbranded.

No. 33015, I-491. Sample of Old Dutch brand Imitation Lemon manufactured by the Wabash Baking Powder Co., Wabash, Ind. Net contents not stated on the label. Misbranded.

No. 33023, I-492. Sample of Seely's Extract of Lemon sold by the Feilbach Co., Toledo, and procured from W. E. Scott, Ann Arbor. Net contents not stated on the label. Misbranded.

No. 33025, R-24. Sample of Galco "A" Vanilla manufactured by E. B. Gallagher & Co., Detroit. Not properly labeled as imitation vanilla.

No. 33165, B-246. Sample of Wigwam Vanilla manufactured by the Michigan Coffee & Spice Co., Menominee, and sold by Carpenter-Cook Co., Menominee. Misbranded in that the net contents is not stated on the label.

No. 33223, I-507. Sample of Vanilla Extract manufactured by Durand & Kasper Co., Chicago, and procured from Wm. Maxwell, Kalamazoo. Sample is not a pure vanilla extract. Not properly labeled.

No. 33224, I-508. Sample of Vanilla Extract manufactured by Durand & Kasper Co., Chicago, and procured from Wm. Maxwell, Kalamazoo. Not properly labeled as an imitation extract.

No. 33741, I-522. Sample of lemon extract procured from H. A. Moore, Niles. Net contents not stated on the label. Misbranded.

FLOUR.

No. 31162, I-376. Sample of graham flour procured from E. R. Hazard, Jackson. Misbranded in that the net weight is not properly stated.

No. 31173, B-156. Sample of Napoleon Flour manufactured by the Washburn Crosby Co., Minneapolis. Misbranded in that the net weight is not stated on the sack.

31908, I-474. Sample of White Rose Flour manufactured by the Pigeon Milling Co., Pigeon. Short weight.

31909, I-475. Sample of White City Flour manufactured by the Pigeon Milling Co., Pigeon. Short weight.

FIGS.

No. 31264, R-13. Sample of figs procured from Frank Bros., 253 Napoleon St., Detroit. Wormy and dirty. Unfit for food.

No. 31488, R-12. Sample of figs sold by Frank Bros. and procured from M. Borenstein, 1038 Hastings St., Detroit. Wormy and dirty. Unfit for food.

HAMBURG STEAK.

Forty samples of Hamburg Steak were examined, seventeen of 42% were found to contain sulphurous acid or salts thereof. Last year we reported on 137 samples of this product and 50% of them were adulterated in the above manner.

Perhaps it might not be amiss here to explain what is meant by the phrase, added sulphurous acid or salts thereof, as it often appears in the laboratory report. It has been found that, when sulphur dioxide, a gas which is formed when sulphur is burned, is brought in contact with meat a peculiar reaction takes place. The meat takes on a bright red color, which gives it the appearance of freshly cut meat. It further prevents putrefaction or spoiling, thereby acting as a chemical preservative. It is not common nor practical to add sulphur dioxide to meat in the form of a gas; consequently the meat man must use it in some more stable and practical form. When sulphur dioxide is passed into water it is dissolved and forms sulphurous acid. If this in turn is then combined with sodium we get a salt of sulphurous acid such as sodium sulphite. This then is the more stable and practical form for use and is the form generally found in meat markets.

This chemical is furnished butchers in various ways and often when sulphurous acids or salts thereof are found in chopped meats an investigation will show that the butcher, although he may know that the addition of sulphite is illegal, he has been led to believe that the particular material he is using is permissible. This is accounted for by the fact that he has purchased an article for use in meat markets which is for all intents and purposes a perfectly legitimate article.

No. 30621, F-191. Sample of Hamburg steak procured from the Grand Rapids Sanitary Market, Grand Rapids. Sample contains added sulphurous acid or salts thereof.

No. 30627, F-182. Sample of Hamburg Steak procured from J. Sanford, Grand Rapids. Sample contains added sulphurous acid or salts thereof.

No. 30633, F-188. Sample of Hamburg Steak procured from M. Williams, Grand Rapids. Sample contains added sulphurous acid or salts thereof.

No. 30748, M-1. Sample of Hamburg Steak procured from Charles

Whitmarsh, 1453 Chene St., Detroit. Sample contains added sulphurous acid or salts thereof.

No. 30931, I-359. Sample of Hamburg Steak manufactured and sold by Henry Breidenstein, Mt. Pleasant. Product contains a small amount of sulphurous acid or salts thereof.

No. 31330, I-373. Sample of Hamburg Steak manufactured and sold by Frank R. Whitfield, Pontiac. Contains added sulphurous acid or salts thereof.

No. 31413, I-385. Sample of Hamburg Steak manufactured and sold by Fred W. Boston, Pontiac. Contains added sulphurous acid or salts thereof.

No. 31477, V-8. Sample of Hamburg Steak manufactured and sold by Geo. Vorpagel, 288 Forest Ave., Detroit. Contains added sulphurous acid or salts thereof.

No. 31588, V-9. Sample of Hamburg Steak manufactured and sold by Anthony Petz, 6 Central Market, Detroit. Contains added sulphurous acid or salts thereof.

No. 31589, K-9. Sample of Hamburg Steak procured from Thomas Newton, 4 Central Market, Detroit. Contains added sulphurous acid or salts thereof.

No. 31827, V-12. Sample of Hamburg Steak manufactured and sold by Wm. Wilkins, 942 Chene St., Detroit. Sulphites 11%. Product contains added sulphurous acid or salts thereof.

No. 33169, V-17. Sample of Hamburg Steak procured from C. L. Stall, 321 Parkview, Detroit. Sample contains added sulphurous acid or salts thereof.

No. 33189, V-20. Sample of Hamburg Steak procured from J. W. Slamer, 1148 Michigan Ave., Detroit. Sample contains added sulphurous acid or salts thereof.

No. 33905, L-14. Sample of Hamburg Steak manufactured and sold by H. H. Woodward, Port Huron. Sample contains added sulphurous acid or salts thereof.

No. 33956, I-532. Sample of Hamburg Steak manufactured by Dick Banyon, Benton Harbor. Sample contains added sulphurous acid or salts thereof.

No. 33999, V-25. Sample of Hamburg Steak manufactured by J. A. Sale, Detroit. Sample contains added sulphurous acid or salts thereof.

No. 34006, V-26. Sample of Hamburg Steak procured from M. Rear-don, 1432 Vinewood, Detroit. Sample contains added sulphurous acid or salts thereof.

HORSE RADISH.

No. 33779, I-530. Sample of horse radish manufactured by Otto Fadke, South Holland, Ill., and procured from Samuel Danforth, St. Joseph. Misbranded in that the net contents are not stated on the label.

ICE CREAM.

Fifteen samples of ice cream were examined. Only two of these were found below the legal standard and both of these samples came

from the same place. A prosecution was instituted in this case and a fine collected. See Prosecution No. 1446.

No. 34025, G-1216. Sample of ice cream manufactured by Harper & Thomas, Calumet. Butter fat 9.0%. Low in butter fat.

No. 30672, G-1116. Sample of ice cream manufactured by Harper & Thomas, Calumet, and sold by Provis Perry, Calumet. Butter fat 4.7%. Below standard in butter fat.

JELLIES, JAMS, ETC.

No. 30770, V-86. Sample of Cherry Preserves manufactured by the Hay Preserving Co., 29 Woodward Ave., Detroit. Net weight not stated.

No. 34034, I-539. Sample of pure fruit jelly (Blossom Brand) manufactured by McNeil & Higgins, Chicago, and procured from E. Leader, Benton Harbor. Net contents not stated. Misbranded.

LARD AND LARD COMPOUNDS.

Forty-one samples of lard and lard compound were examined. Twenty-six were adulterated or misbranded. Nineteen of these were sold for pure lard when they were not pure lard, but lard compound. Two were sold for lard compound but were misbranded for the reason that the package containing the product was not properly labeled as lard compound.

Three samples of lard and one of lard compound were condemned because the net weight was not stamped on the pail or package as required by law.

Lard is the rendered fresh fat from hogs in good health at the time of slaughter, is clean, free from rancidity and contains necessarily incorporated in the process of rendering, not more than one per cent of substances other than fatty acids and fat.

Lard compound is a mixture of the above material and some animal and vegetable fat or oil. The materials most commonly used for this purpose are cottonseed oil and beef fat used together or separate. In fact, it is quite common among manufacturers to mix a small amount (usually about 5%) of beef fat with lard and label it "Pure Lard with Beef Stearin added." This method is all right providing the consumer buys the original package. However, when the original package is a large tub or tierce and the retailer sells out of this, the consumer should be informed that he is not buying pure lard. This can be readily accomplished by the dealer if he will stamp the package in which he deals out the mixture "Lard Compound."

Cottonseed oil and beef fat are both cheaper than lard, consequently when competition is a little too keen, the temptation to sell "Lard Compound" for pure lard is sometimes not overcome, as is shown below.

No. 30562, I-332. Sample of lard manufactured and sold by Frank Noa, Gaylord. Sample contains cottonseed oil and is not stamped.

No. 30563, I-333. Sample of lard manufactured and sold by E. Carr & Son, Gaylord. Sample contains beef fat. Not properly labeled as a lard compound.

No. 30644, F-196. Sample of lard procured from J. Pollie, Grand Rapids. Sample is lard compound.

No. 30656, B-115. Sample of lard compound procured from L. S. Walter, Fife Lake. Package not stamped.

No. 31336, G-1136. Sample of lard procured from Paul Lamkey, Garden. Sample is lard compound, not properly labeled.

No. 31337, G-1137. Sample of lard procured from H. Deloria, Cooks Mills. Sample is lard compound, not properly labeled.

No. 31338, G-1138. Sample of lard procured from James O'Brien, Cooks Mills. Product is lard compound, not properly stamped.

No. 31339, G-1139. Sample of lard procured from Breitenbach Bros., North Escanaba, and manufactured by the Freidman Mfg. Co., Chicago. Manufacturer's package not properly labeled as lard compound. Retailer's package not labeled.

No. 31351, F-219. Sample of lard compound procured from F. H. Bitely, Casnovia. Not stamped.

No. 31396, B-193. Sample of lard procured from Tom Thomas, Sault Ste Marie. Sample is lard compound.

No. 31500, I-393. Sample of lard procured from David Mott, Wayne. Labeled "Pure Kettle Rendered Lard." Sample contains a small amount of beef fat and net weight is not stated.

No. 31593, G-1157. Sample of lard put up by Cudahy Packing Co., Sioux City, Iowa. Product is lard compound not properly labeled.

No. 31674, I-405. Sample of lard procured from Bert Eckert, Alma. Not a pure lard.

No. 31675, I-406. Sample of lard procured from Cook & Nelson, Durand. Not a pure lard.

No. 31754, I-426. Sample of lard procured from Aaron Hughes, Jackson. Misbranded in that the net weight is not stated on the pail.

No. 31824, I-458. Sample of lard procured from Copeland and Griffin, Fowlerville. Not a pure lard.

No. 31913, I-477. Sample of lard from W. W. Ostrom, North Adams. Misbranded in that the net weight was not stated on the pail.

No. 31914, I-478. Sample of lard from Joe Crosse, Hillsdale. Not a pure lard.

No. 31946, B-229. Sample of lard manufactured and sold by Wm. A. Sack, Boyne City. Product is lard compound. Label stated gross weight instead of net weight.

No. 32054, B-237. Sample of lard compound procured from Snell & Burns, Sugar Island. Product is lard compound. Package not stamped.

No. 33148, I-504. Sample of lard compound manufactured and sold by the Bazley Market, Saginaw. Net weight not stated on package.

No. 33776, I-527. Sample of lard procured from J. T. Clark, St. Joseph. Product is lard compound.

No. 33805, B-275. Sample of lard manufactured by Shaheen Bros., Boyne City. Misbranded in that the net weight was not stated on the pail.

No. 33829, G-1198. Sample of lard procured from Hankin & Osser, Munising. Sample is lard compound not stamped.

No. 33868, G-1207. Sample of lard procured from M. Janowitz, Menominee. Sample is not pure lard. Package not stamped.

No. 33869, G-1208. Sample of lard procured from Tom Robert, Menominee. Sample is not pure lard. Package not stamped.

LINSEED OIL.

In the past three years this Department has been actively attempting to eliminate the adulterated linseed oils from the market of this state. It has been more or less of an up-hill fight as the actual adulterators have resided without the state and therefore have been out of our reach.

Some two years ago we issued about 20,000 bulletins on the conditions of the linseed oil market in Michigan. Among other things we printed a list of linseed oils that we have found adulterated and gave the names of the adulterators. This bulletin had a very extensive circulation and should have reached every community in the state. It was pointed out that the common adulterant was a mineral oil and that it had been our experience that the adulterated oils came from Cleveland, Ohio.

This publicity work did not seem, however, to cure the evil although the sale of adulterated oils was curtailed considerably. It was thought that the first bulletin would be sufficient warning so that those who were handling these products would discontinue the practice, but this does not seem to be the case. Recently the Department issued a second bulletin notifying dealers of a change in policy in dealing with the linseed oil problem, viz., that the Department would prosecute any dealer without warning who was found selling adulterated oils.

During the year we examined 34 samples of linseed oils and found 29 of them adulterated. It will be noted by going through this list that most of them came from the Noble Refining Company, Cleveland, Ohio.

Two prosecutions were instituted for the sale of adulterated Linseed oil. In one instance service was had on the agent of the Noble Refining Company (see Case No. 1414), while in the second we prosecuted a dealer.

No. 31167, B-151. Sample of Linseed Oil manufactured by the Noble Refining Co., Cleveland, Ohio, and procured from Jos. Solomon, Glennie. Not a pure linseed oil. Adulterated with a petroleum product.

No. 31168, B-152. Sample of Linseed Oil manufactured by the Noble Refining Co., Cleveland, Ohio, and procured from Jos. Solomon, Glennie. Not a pure linseed oil. Adulterated with a petroleum product.

No. 33098, B-242. Sample of raw linseed oil manufactured by the Noble Refining Co., Cleveland, Ohio, and procured from Henry Eoff, Fountain. Not a pure linseed oil.

No. 33227, B-258. Sample of raw linseed oil manufactured by the Noble Refining Co., Cleveland, Ohio, and procured from Henry Eoff, Fountain. Not a pure linseed oil.

No. 33227, B-258. Sample of raw linseed oil manufactured by the Noble Refining Co., Cleveland, Ohio, and procured from Henry Eoff, Fountain. Not a pure linseed oil.

No. 33687, B-264. Sample of linseed oil procured from J. W. Bennett & Son, Freesoil. Not a pure linseed oil.

No. 33724, B-266. Sample of boiled linseed oil procured from A. J. Linsett, Rudyard. Not a pure oil.

No. 33726, B-268. Sample of boiled linseed oil manufactured by the Southern States Turpentine Co., Cleveland, and procured from D. E. Turner & Co., Rudyard. Not a pure linseed oil.

No. 33727, B-269. Sample of raw linseed oil manufactured by the Southern States Turpentine Co., Cleveland, and procured from D. E. Turner Co., Rudyard. Not a pure raw linseed oil.

No. 33770. Unofficial sample of boiled linseed oil. Not a pure oil.

No. 33800, B-270. Sample of linseed oil procured from Herron & Son, Boyne City. Not a pure linseed oil.

No. 33889, B-276. Sample of linseed oil manufactured by the Southern States Turpentine Co., Cleveland, and procured from the Soo Hardware Co., Sault Ste. Marie. Not a pure linseed oil.

No. 33915, B-277. Sample of linseed oil manufactured by the Noble Refining Co., Cleveland, and procured from J. A. Montague & Son, Traverse City. Not a pure linseed oil.

No. 33916, B-278. Sample of linseed oil manufactured by the Noble Refining Co., Cleveland, and procured from the Scott Drug Co., Traverse City. Not a pure linseed oil.

No. 33932. Unofficial sample of raw linseed oil. Adulterated with a petroleum product.

No. 33935. Unofficial sample of linseed oil. Not a pure linseed oil.

No. 34019, L-18. Sample of raw linseed oil manufactured by the Noble Refining Co., Cleveland, and procured from J. G. Riefenberg, LaPort, Mich. Not a pure linseed oil.

No. 34020, L-19. Sample of boiled linseed oil manufactured by the Noble Refining Co., Cleveland, and procured from J. G. Riefenberg, LaPort, Mich. Not a pure linseed oil.

No. 34026, B-284. Sample of raw linseed oil manufactured by the Noble Refining Co., Cleveland, and procured from B. V. Funk, Grawn. Not a pure linseed oil.

No. 34029, B-287. Sample of linseed oil manufactured by the Southern States Turpentine Co., Cleveland, and procured from T. Plamondon, Provemont. Sample is not a pure linseed oil.

No. 34030, B-288. Sample of linseed oil manufactured by the Southern States Turpentine Co., Cleveland, and procured from T. Plamondon, Provemont. Not a pure linseed oil.

No. 34031, B-289. Sample of raw linseed oil manufactured by the Noble Refining Co., Cleveland, and procured from T. Plamondon, Provemont. Not a pure linseed oil.

No. 34032, B-290. Sample of raw linseed oil manufactured by the Noble Refining Co., Cleveland, and procured from E. M. Franklin, Traverse City. Not a pure linseed oil.

No. 35122, B-292. Sample of linseed oil manufactured by the Noble Refining Co., Cleveland, and procured from Geo. Klooster & Son, Ellsworth. Not a pure linseed oil.

No. 35123, B-293. Sample of linseed oil manufactured by the Noble Refining Co., Cleveland, and procured from J. Donlevy, St. James. Not a pure linseed oil.

No. 35124, B-294. Sample of linseed oil manufactured by the Noble

Refining Co., Cleveland, and procured from J. Donlevy, St. James. Not a pure linseed oil.

No. 35125, B-295. Sample of linseed oil manufactured by the Noble Refining Co., Cleveland, and procured from J. McCann, St. James. Not a pure linseed oil.

No. 35126, B-296. Sample of linseed oil manufactured and sold by the Noble Refining Co., Cleveland, and procured from J. McCann, St. James. Not a pure linseed oil.

No. 35128, B-299. Sample of boiled linseed oil manufactured by the Noble Refining Co., Cleveland, and procured from S. M. See & Son, Charlevoix. Not a pure linseed oil.

No. 35129, B-300. Sample of raw linseed oil manufactured by the Noble Refining Co., Cleveland, and procured from S. M. See & Son, Charlevoix. Not a pure linseed oil.

MAPLE SUGAR.

No. 33929. Unofficial sample of maple sugar. Not a pure maple sugar.

MAPLE SYRUP.

No. 30712, F-199. Sample of maple syrup manufactured and sold by J. Hostetter, Elmdale. Sample is pure maple syrup but contains an excessive amount of moisture.

No. 33798. Unofficial sample of maple syrup. Not a pure maple syrup.

MEAT.

No. 31411, F-220. Sample of dressed lamb procured from Patterson Bros., White Cloud. Sample consists wholly or in part of a decomposed, putrid, infected, tainted or rotten animal substance.

No. 33022, I-493. Sample of pork procured from Armour & Co., Ann Arbor. Unfit for human consumption for the reason that it consists wholly or in part of an infected and tainted animal substance.

MILK.

The samples of milk examined hardly need further explanation than already appears in the brief report after each sample. The statute requires that milk to be legal should have a specific gravity of 1.029 — 1.033; that it should contain 12.5% solids, not less than 3% butter fat and that it contain no foreign or unwholesome substance. In my opinion this law is unfair as it has been my experience that very little milk produced in Michigan will contain 12.5% solids. This content of solids is altogether too high. It seems advisable that this feature of the statute be amended.

Three hundred and seventeen samples of milk were examined, 92 were found to be adulterated; 40 of these were adulterated for the reason that they contained added water, and 16 had been skimmed. The remainder were condemned because they did not conform to the legal standard

for milk. Prosecutions were instituted in a number of instances for these violations.

No. 30687, I-348. Sample of milk procured from Curtis E. Fairchilds, Cheboygan. Below standard in butter fat. A part of the cream has been removed.

No. 30724, J-42. Sample of milk procured from Wm. Yaster, Clio. Below standard in specific gravity and total solids. Sample contains about 22% added water.

No. 30819, P-1308. Sample of milk procured from W. D. Minor, Battle Creek. Sample contains an excessive amount of visible dirt.

No. 30822, P-1311. Sample of milk procured from L. W. Miller, Battle Creek. Sample low in total solids. Contains about 5% added water.

No. 30823, P-1312. Sample of milk procured from C. D. Wilbur, Battle Creek. Below standard in butter fat and total solids. A part of the cream has been removed. Contains an excessive amount of dirt.

No. 30824, P-1313. Sample of milk procured from C. D. Wilbur, Battle Creek. Contains an excessive amount of dirt.

No. 30841, I-353. Sample of milk procured from Robert Sommer, Mackinaw City. Below standard in butter fat and total solids. A part of the Cream has been removed.

No. 30858, U-6. Sample of milk procured from Geo. Ansur, 18 Manchester Ave., Highland Park. Below standard in total solids.

No. 30861, U-9. Sample of milk procured from Chas. Diamantis, 28 Manchester Ave., Highland Park. Below standard in total solids.

No. 30863, U-11. Sample of milk procured from the London Lunch, 36 Manchester Ave., Highland Park. Below standard in butter fat. Butter fat 2.7%.

No. 30906, P-1323. Sample of milk procured from Lincoln Culp, Lake Odessa. Butter fat 2.8%. Below standard.

No. 30907, P-1324. Sample of milk procured from E. M. Dorrine, Sebawa Corners. Butter fat 2.4%. Below standard.

No. 30908, P-1325. Sample of milk procured from Bert Bachelder, Lake Odessa. Butter fat 2.9%. Below standard.

No. 30909, P-1326. Sample of milk procured from Fred McNeil, Lake Odessa. Butter fat 2.8%. Below standard.

No. 30910, P-1327. Sample of milk procured from Clarence Possehn, Portland. Butter fat 2.8%. Below standard.

No. 30978, P-1338. Sample of milk procured from Frank Claire, Bronson. Butter fat 2.4%, total solids 11.95%. Below standard in butter fat and total solids.

No. 30982, P-1342. Sample of milk procured from Tom Ludwig, Bronson. Butter fat 2.6%. Below standard in butter fat.

No. 30998, P-1343. Sample of milk procured from the Little Phoenix Restaurant, Charlotte. Below standard in butter fat and total solids. A part of the cream has been removed.

No. 31001, P-1346. Sample of milk procured from Ellis W. Dorin, Portland. Below standard in butter fat and total solids.

No. 31004, P-1349. Sample of milk procured from Wm. Shelhorn, Lake Odessa. Below standard in butter fat and total solids.

No. 31009, P-1354. Sample of milk procured from Wm. Shelhorn, Lake Odessa. Sample contains an excessive amount of dirt.

No. 31010, P-1355. Sample of milk procured from Rowlader & James, Woodland. Contains an excessive amount of dirt.

No. 31072, N-69. Sample of milk produced by Mike Jakowsky, Millington R. F. D. Below standard in specific gravity and total solids. Contains about 13% added water.

No. 31073, N-70. Sample of milk produced by Alfred Bell, Millington R. F. D. Below standard in specific gravity, butter fat and total solids. Sample contains about 31% added water.

No. 31084, N-71. Sample of milk produced by William Eaton, Elkton. Below standard in specific gravity, butter fat and total solids. Sample contains about 14% added water.

No. 31404, B-202. Sample of milk procured from W. H. Stribling, Sault Ste. Marie. Below standard in butter fat and total solids. Probably normal milk.

No. 31408, B-206. Sample of milk procured from James Nanos, Sault Ste. Marie. Below standard in butter fat and total solids. A part of the cream had been removed.

No. 31533, P-1374. Sample of milk procured from Kalamazoo Creamery Co., Kalamazoo. Below standard in specific gravity and total solids. Contains about 9% added water.

No. 31534, P-1375. Sample of milk sold by the Kalamazoo Creamery Co., Kalamazoo, and procured from E. B. Russell, Kalamazoo. Below standard in specific gravity and total solids. Contains about 9% added water.

No. 31543, P-1384. Sample of milk sold by the Kalamazoo Creamery Co., Kalamazoo, and procured from the Cooperative Grocery Co., Kalamazoo. Below standard in specific gravity and total solids. Contains about 9% added water.

Nos. 31611, 31618, P-1389-P-1396. Samples of milk procured from W. H. Gray, Kalamazoo. Below standard in specific gravity and total solids. Contain from 17½ to 32% added water.

No. 31646, P-1424. Sample of milk procured from E. C. Whiteneck, Kalamazoo. Below standard in butter fat and total solids. A part of the cream has been removed.

No. 31648, P-1426. Sample of milk procured from Jas. Van Horn, Bloomington. Below standard in butter fat and total solids. A part of the cream had been removed.

Nos. 31709-31718, W-33-W-42. Samples of milk procured from W. H. Gray, Kalamazoo. Below standard in specific gravity and total solids. Contain from 18% to 27% added water.

No. 31721, W-45. Sample of milk procured from James Van Horn, Bloomington. Below standard in butter fat and total solids. A part of the cream had been removed.

No. 31954, I-482. Sample of milk procured from J. Ginthner, Bad Axe. Below standard in butter fat and total solids.

No. 33106, N-73. Sample of milk produced by John Trimble, Ashley, R. F. D. No. 3. Below standard in specific gravity and total solids. Contains about 30% added water.

No. 33107, N-74. Sample of milk produced by H. Rhynard, Ashley, R. F. D. Below standard in specific gravity, butter fat and total solids. Contains about 17% added water.

No. 33109, I-499. Sample of milk produced and sold by John Gintner, Bad Axe. Below standard in butter fat and total solids. A part of the cream has been removed.

No. 33110, I-501. Sample of milk sold by Mrs. Burns, Bad Axe. Below standard in butter fat and total solids. A part of the cream has been removed.

No. 33111, I-502. Sample of milk sold by Mrs. Burns, Bad Axe. Below standard in butter fat and total solids. A part of the cream has been removed.

No. 33149, B-243. Sample of milk procured from Sayles & Curtis, Topinabee. Below standard in butter fat and total solids. A part of the cream has been removed.

No. 33150, B-244. Sample of milk procured from Sayles & Curtis, Topinabee. Below standard in butter fat and total solids. A part of the cream has been removed.

No. 33220, W-61. Sample of milk procured from R. E. Waldo, Kalamazoo. Sample contains an excessive amount of visible dirt.

No. 33255, I-511. Sample of milk produced and sold by Roy L. Guilford, Laingsburg. Not a normal milk. Probably whole milk that has had skimmed milk added to it.

No. 33256, F-238. Sample of dry milk manufactured by the Clio Condensed Milk Co., Clio. Label claims it to be a pure milk product. Preparation is made from skimmed milk. Misbranded.

No. 33415, N-75. Sample of milk produced by Will Parker, Butternut. Below standard in butter fat and total solids.

No. 33416, N-76. Sample of milk produced by D. Hogan, Butternut. Below standard in butter fat and total solids.

No. 33603, N-77. Sample of milk produced by August Dux, Birch Run R. F. D. Below standard in specific gravity, butter fat and total solids. Sample contains about 22% added water.

No. 33712, N-78. Sample of milk sold by Frank Hatinger, Vickeryville. Below standard in specific gravity and total solids. Sample contains an excessive amount of visible dirt and about 32% added water.

No. 33713, N-79. Sample of milk sold by Lew Monroe, Fenwick R. F. D. Below standard in specific gravity and total solids. Sample contains about 20% added water and an excessive amount of dirt.

No. 33717, N-80. Sample of milk sold by Chas. Bates, Vickeryville. Below standard in butter fat and total solids and contains an excessive amount of visible dirt.

No. 33718, N-81. Sample of milk sold by Chas. Williams, Sheridan R. F. D. Sample contains an excessive amount of visible dirt.

No. 33719, N-82. Sample of milk sold by Chas. Snyder, Vickeryville. Below standard in specific gravity and total solids. Sample contains an excessive amount of dirt and about 22% added water.

No. 33823, N-83. Sample of milk sold by Sylvester Arntz, Sheridan R. F. D. Below standard in total solids and specific gravity. Contains an excessive amount of visible dirt and about 18% added water.

No. 33824, N-84. Sample of milk sold by Mrs. Greenhoe, Fenwick R. F. D. Below standard in specific gravity and total solids. Contains an excessive amount of visible dirt and about 19% added water.

No. 33826, N-86. Sample of milk sold by Chas. Bates, Vickeryville R. F. D. Below standard in butter fat, total solids, and specific gravity. Contains an excessive amount of visible dirt.

No. 33827, N-87. Sample of milk sold by Chas. Williams, Sheridan R. F. D. Sample contains an excessive amount of visible dirt.

No. 33828, N-88. Sample of milk sold by Chas. Snyder, Fenwick R. F. D. Sample contains an excessive amount of visible dirt.

No. 33825, N-85. Sample of milk sold by John Tow, Vickeryville R. F. D. Below standard in specific gravity, butter fat and total solids. Contains an excessive amount of visible dirt and about 19% added water.

No. 33894, N-90. Sample of milk sold by A. Tonkovich, Sterling R. F. D. Below standard in specific gravity, butter fat and total solids. Contains about 27% added water.

No. 33895, N-91. Sample of milk sold by Fred Schmitz, Sterling R. F. D. Below standard in specific gravity, butter fat and total solids. Contains about 15% added water.

No. 33896, N-92. Sample of milk sold by Elmer Greanya, Standish R. F. D. Below standard in specific gravity and total solids. Contains about 15% added water.

No. 33897, N-93. Sample of milk sold by Will Nehls, Standish R. F. D. Below standard in specific gravity, total solids and butter fat. Contains about 19% added water.

No. 33898, N-94. Sample of milk sold by John Brazon, Standish R. F. D. Below standard in specific gravity and total solids. Contains about 8% added water.

No. 33899, N-95. Sample of milk sold by Thomas Wyatt, Standish R. F. D. Below standard in butter fat and total solids. A part of the cream has been removed.

No. 33900, N-96. Sample of milk sold by James Grier, Standish R. F. D. Below standard in butter fat and total solids. Above standard in specific gravity. A part of the cream has been removed.

No. 33901, N-97. Sample of milk sold by C. Grandmason, Standish R. F. D. Below standard in butter fat and total solids. Above standard in specific gravity. A part of the cream has been removed.

No. 34081, N-101. Sample of milk sold by Ernest Racey, Lake Odessa. Below standard in butter fat and total solids.

No. 34087, N-104. Sample of milk sold by Barnum Brothers, Woodland. Below standard in butter fat and total solids.

No. 34095, N-108. Sample of milk sold by Oscar S. Gray, Lake Odessa. Below standard in butter fat and total solids.

No. 34097, N-109. Sample of milk sold by Fred Haight, Lake Odessa. Below standard in butter fat and total solids.

No. 35101, N-111. Sample of milk sold by O. R. Eaton, Sunfield. Below standard in butter fat and total solids. Probably watered.

No. 35102, N-112. Sample of milk sold by O. R. Eaton, Sunfield.

Below standard in specific gravity, butter fat and total solids. Contains about 14% added water.

No. 35104, N-113. Sample of milk sold by O. R. Eaton, Sunfield. Below standard in specific gravity, butter fat and total solids. Contains about 35% added water.

MILK CANS.

No. 30783, P-1300. One open seam milk can procured from Wm. Murray, Climax. Open seam cans are not permissible for the storage or transportation of milk.

No. 30784, P-1301. Open seam milk can procured from Ali Case, Climax. Open seam cans are not permissible for the storage or transportation of milk.

No. 31373, B-177. Milk can procured from Wm. A. McCool, Traverse City. Can is rusty inside and has open seams. Not suitable for use.

No. 31973, I-484. Milk can procured from A. O. Berski, Ubly. Open seams full of filth.

No. 31974, I-485. Milk can procured from Alex Watson, Ubly. Open seams full of filth.

No. 31975, I-486. Milk can procured from John Pettinger, Ubly. Open seams full of filth.

No. 31976, I-487. Milk can procured from Wm. Carr, Bad Axe. Open seams full of filth.

MUSTARD.

No. 33677, F-248. Sample of Elks Pride Mustard manufactured by the Harbauer Co., Toledo, and sold by Radamaker & Dooge, Grand Rapids. Misbranded in that the net weight is not stated on the label.

NUTS.

In the fall of 1913 there first appeared on the Michigan markets a number of different kinds of nuts that were of a peculiar color. Upon examination they were found to be coated with an iron oxide, which gave them a reddish brown color. Eight samples were submitted during the past year, five of which had been similarly treated.

No. 31359. Unofficial sample of Pecan Nuts. Nuts are coated with iron oxide.

No. 31391, B-185. Pecan nuts sold by Booth-Newton Co., Sault Ste. Marie and procured from John Coteloniz, Sault Ste. Marie. Nuts are coated with iron oxide.

No. 31390, B-182. Paradise nuts sold by Booth-Newton Co., Sault Ste. Marie and procured from Geo. Wheatley, Sault Ste. Marie. Nuts are coated with iron oxide.

No. 31395, B-191. Pecan nuts sold by E. P. Slocy & Sons, Minneapolis, and procured from Chris Gianakura, Sault Ste. Marie. Nuts are coated with iron oxide.

No. 31670, B-224. Sample of nuts sold by John Carroll, Bay City. Coated with iron oxide. Not salable.

No. 31683, P-1430. Sample of peanuts procured from the Hanselman

Candy Co., Kalamazoo. Sample consists of worm-eaten nut meats and dirt. Unfit for food.

No. 31684, P-1432. Sample of pecans procured from the Hanselman Candy Co., Kalamazoo. Sample consists of old rancid nut meats, live insects and refuse. Unfit for food.

No. 31685, P-1431. Sample of peanuts procured from the Hanselman Candy Co., Kalamazoo. Sample consists of old rancid nut meats, live insects and refuse. Unfit for food.

OLEOMARGARINE.

Oleomargarine is seldom adulterated in the common meaning of the term. The thirteen samples reported below were either artificially colored in violation of the special statute covering this matter or were sold in places where no legal sign was displayed in accordance with the law.

No. 30991, B-147. Sample of oleomargarine procured from Chas. Wilcox, Frederic. No sign posted.

No. 31235, P-1368. Sample of oleomargarine procured from Geo. Smith, Hastings. No sign posted. Illegal.

No. 31305, V-5. Sample of "Butterine" procured from C. L. Pixley, 367 Dix Ave., Detroit. Product is oleomargarine artificially colored.

No. 31392, B-186. Sample of oleomargarine procured from Frank Callaghan, Sault Ste. Marie. Sample is oleomargarine. No sign displayed.

No. 31355, G-1140. Sample of oleomargarine procured from Geo. M. Mashek, Cornell. Sample is oleomargarine. No sign displayed.

No. 31394, B-188. Sample of oleomargarine procured from Joseph Fuoco, Sault Ste. Marie. Sample is oleomargarine. No sign displayed.

No. 31440, B-183. Sample of oleomargarine procured from Samuel C. Skidmore, Sault Ste. Marie. Sample is oleomargarine. No sign displayed.

No. 31950, B-233. Sample of oleomargarine procured from T. J. Smith & Son, Boyne City. No sign displayed. Illegal sale.

No. 32053, B-236. Sample of oleomargarine procured from Snell & Burns, Sugar Island. No sign displayed. Illegal sale.

No. 33190, V-19. Sample of oleomargarine procured from Alex. M. Wright, 819 Michigan Ave., Detroit. Sample is oleomargarine artificially colored.

No. 33193, B-250. Sample of oleomargarine procured from Ed Johnson, Newberry. Sample is oleomargarine. No sign displayed in dining room.

No. 33853, L-11. Sample of oleomargarine procured from John Meyer & Co., Bay City. No sign posted. Illegal sale.

No. 33863, G-1202. Sample of oleomargarine procured from J. P. Haglund, Menominee. No sign posted. Illegal sale.

OLIVES.

No. 30749, D-210. Sample of olives put up by R. C. Chances Sons, Philadelphia, Pa. Labelled "Capacity 5 fl. oz." Misbranded. Label should read "Net Contents" instead of "Capacity."

No. 31020, F-211. Sample of olives handled by Rademaker Dooge Co., Grand Rapids and procured from A. McDonald & Son, Newaygo. Misbranded in that the manufacturer's name and address is not stated on the label.

No. 33904, L-13. Sample of stuffed olives put up by Berdan & Co., Toledo, Ohio. Misbranded.

OYSTERS.

During the past three years the Department has kept in close touch with the oysters as shipped into the state. During the fiscal year of 1912-13 we examined 81 samples of this product and found many of them to contain an excessive amount of water. Numerous lots were seized and condemned. In 1914 the inspectors found it necessary to submit but 15 suspicious samples and only seven of these were condemned. This year but twelve samples were submitted, 3 of which were found to contain excessive amounts of water.

There are two ways by which water may be added to oysters. One is by adding the water direct to the container or by placing a piece of ice in with the oysters, and the other is by allowing the oysters after they are taken from the shipping can, to soak in water for several hours, then removing the oysters and allowing them to drain. This is often called "floating" or "soaking" and it gives the oyster a sleek fat appearance and increases the weight and volume considerably. Oysters are sometimes floated at the beds before removal from the shell. This is accomplished by allowing them to lay on racks or floats at the mouth of fresh water streams. Oysters that are "floated" either at the beds or after receipt by the jobber or dealer will generally show an excessive amount of unabsorbed water upon analysis.

No. 31328, I-371. Sample of oysters procured from Longheed & Pelton, Pontiac. Oysters contain an excessive amount of water.

No. 31417, I-389. Sample of oysters procured from M. E. Newman, Pontiac. Oysters contain an excessive amount of water.

No. 31678, I-409. Sample of oysters procured from Nathan B. Smith & Co., Durand. Oysters contain an excessive amount of water.

PEA SEED.

No. 33602, I-517. One quart pea seed procured from B. A. Liverance & Co., Williamston. Short measure.

PORK.

No. 33151, G-1180. Sample of pork procured from the Iron River Mercantile Co., Iron River. Sample consists wholly or in part of tainted and infected meat.

PICKLES.

No. 31388, B-180. Samples of sweet pickles sold by the Booth, Newton Co., Sault Ste. Marie, and procured from W. J. Armstrong, Sault Ste. Marie. Manufacturer's name and address not stated. Net weight does not conform to statements on label.

POTATOES.

It has been a common practice for a number of years for dealers to use the so-called "stovepipe" bottomless measure in measuring dry commodities. These measures were made in various sizes and their cubical capacity was generally correct for a particular size. A peck measure would hold a full peck of pears or beans or other small commodity. They would not however, hold a full peck of large commodities such as potatoes, turnips, etc. The height of the measure permitted of too many spaces between the potatoes; thereby causing a shortage in weight. A peck of potatoes according to the Michigan Statute, should weigh 15 lbs. A peck of potatoes when measured in the "stove-pipe" measure will weigh only 12 lbs. Hence when a dealer sold a peck of potatoes and used one of these measures the consumer was defrauded. The inspection force of the Department condemned these measures wherever found and warned dealers against their use.

Thirteen samples of potatoes were submitted for weighing. Twelve of these were found to be short of the 15 lbs. required for a full peck.

No. 30774, B-127. One peck of potatoes procured from Herman Bird, Jr., Mackinac Island. Amount of potatoes present $12\frac{3}{4}$ lbs. Quantity less than represented.

No. 31441, B-184. One peck potatoes procured from Jos. D. McQueen, Sault Ste. Marie. 14 oz. short weight.

No. 31442, B-189. One-half peck potatoes procured from Frank Trappasso, Sault Ste. Marie. 1 lb. and 12 oz. short weight.

No. 31443, B-190. One peck potatoes procured from L. Deluca, Sault Ste. Marie. 3 lbs. and 3 oz. short weight.

No. 31444, B-192. One-half peck potatoes procured from Central Grocer Co., Sault Ste. Marie. 1 lb. and 2 oz. short weight.

No. 31445, B-196. One-half peck potatoes procured from Frank Falcone, Sault Ste. Marie. 12 oz. short weight.

No. 31743, I-416. One peck of potatoes procured from Ella E. Butler, Jackson. Two pounds and 2 ounces short weight.

No. 31744, I-417. One peck potatoes procured from Nessley Grocery Co., Jackson. One pound and 15 oz. short weight.

No. 31749, I-421. One peck potatoes procured from Fuller-Kirtland, Jackson. Two pounds and 12 oz. short weight.

No. 31753, I-425. One peck potatoes procured from Miss Anna Oberiesen, Jackson. Six oz. short weight.

No. 31822, I-456. One peck potatoes procured from J. Ashley, Fowlerville. Short weight.

PRESERVATIVES.

No. 29725, P-1213. Sample of Iceine manufactured by the Heller Chemical Co., Chicago. Contains sodium sulphite. Not permissible in food products.

RICE.

No. 34018, F-258. Sample of rice sold by McNeil & Higgins, Chicago. Product is coated with glucose and talc.

SALMON.

No. 33744, I-525. Sample of pink salmon procured from Frank S. Taylor, Niles. Net weight not stated on the package. Misbranded.

SAUSAGE.

The 1913 legislature passed a law requiring that all sausage sold in Michigan if it contained added cereal must be labeled so that the consumer is appraised of the fact. The law also requires that sausage makers must not have over 2% of the cereal in the finished product.

One hundred and thirty-eight samples of this product were submitted. Fifty-two samples were found to contain cereal in excess of 2% and were therefore adulterated. A number of these samples failed to bear any statement on the package that they contained cereal. One of these samples contained over 14% of cereal while many contained over 5%. The cereal in most cases being corn flour. Thirty-five samples were misbranded for the reason that they contained cereal, but no label or stamp appeared on the package to indicate the fact. One sample contained sulphurous acid or its salts, the same preservative that is so often used in hamburger steak. The law specifically prohibits its use in sausages. Many prosecutions were had for these offenses and fines collected in many instances. One defendant, however, feels that the law is unconstitutional and has appealed his case to the supreme court, where it is awaiting a hearing at this writing.

No. 30599, I-339. Sample of bologna sausage manufactured and sold by C. Gwinner, 309 Trail St., Jackson. Cereal present. Package or product not marked or stamped to indicate presence of cereal.

No. 30601, I-341. Sample of bologna sausage manufactured and sold by John Schramm, Jackson. Cereal present. Package or product not marked or stamped to indicate presence of cereal.

No. 30620, F-190. Sample of bologna procured from the Grand Rapids Sanitary Market, Grand Rapids. Cereal present. Contains an excessive amount of cereal.

No. 30622, F-192. Sample of sausage procured from Zinser & Co., Grand Rapids. Cereal present. Package or product not marked or stamped to indicate cereal.

No. 30626, F-181. Sample of sausage procured from J. Sanford, Grand Rapids. Sample contains sulphurous acid or salts thereof.

No. 30628, F-183. Sample of sausage manufactured by Thomasma Bros., Grand Rapids, and procured from C. D. Cooper, Grand Rapids. Cereal 3.16%. Package or product not marked or stamped to indicate presence of cereal. Contains an excessive amount of cereal.

No. 30636, I-342. Sample of bologna sausage manufactured and sold by McDonald & Beckett, Brown City. Cereal 4.0%. Contains an excessive amount of cereal.

No. 30646, I-343. Sample of bologna sausage manufactured and sold by Abraham Sly & Co., Marlette. Cereal present. Package or product not marked or stamped to indicate presence of cereal.

No. 30659, B-116. Sample of sausage manufactured and sold by Peter Naylor, Fife Lake. Cereal 3.2%. Contains an excessive amount of cereal.

No. 30677, B-118. Sample of sausage manufactured and sold by Spinner & Bachi, Elk Rapids. Cereal present. Package or contents not marked or stamped to show presence of cereal.

No. 30685, I-346. Sample of bologna sausage manufactured and sold by Henry Barber, Cheboygan. Cereal 3.73%. Sample marked "Sausage with Cereal." Sample contains an excessive amount of cereal.

No. 30686, I-347. Sample of bologna manufactured and sold by Thomas Stevenson, Cheboygan. Cereal present. Package or contents not marked to indicate presence of cereal.

No. 30688, I-349. Sample of frankfurts procured from Robert Meggitt & Son, Cheboygan. Cereal present. Package or contents not marked or stamped to indicate presence of cereal.

No. 30707, F-198. Sample of sausage procured from Bolt & Casmier, Grand Haven. Cereal 3.99%. Package stamped "Sausage, water and cereal." Contains an excessive amount of cereal.

No. 30714, F-200. Sample of bologna procured from the Grand Rapids Sanitary Market, Grand Rapids. Cereal 4.78%. Package stamped "Sausage with cereal." Contains an excessive amount of cereal.

No. 30715, F-201. Sample of bologna procured from the Grand Rapids Sanitary Market, Grand Rapids. Cereal 3.45%. Package stamped "Sausage with Cereal." Sample contains an excessive amount of cereal.

No. 30727, P-1299. Sample of bologna sausage manufactured and sold by G. A. Boyer, Mendon. Cereal 3.78%. Package or contents not marked or stamped to indicate presence of cereal. Contains an excessive amount of cereal.

No. 30796, B-128. Sample of sausage manufactured and sold by the Alpena Meat Co., Alpena. Cereal present. Sample not stamped.

No. 30797, B-129. Sample of sausage manufactured and sold by the Marine Meat Market, Alpena. Cereal present. Package not stamped. Sausage not stamped.

No. 30798, B-130. Sample of sausage manufactured and sold by Chris. Nelson, Alpena. Cereal 5.19%. Contains excess cereal.

No. 30801, B133. Sample of sausage manufactured and sold by W. J. Gabrysiak, Alpena. Cereal present. Package not stamped.

No. 30802, B-134. Sample of sausage manufactured and sold by John B. Markowski, Alpena. Cereal 4.49%. Contains excess cereal.

No. 30803, B-135. Sample of sausage manufactured and sold by L. T. St. Onge, Alpena. Cereal 3.71%. Sample contains excess cereal.

No. 30805, B-137. Sample of sausage manufactured and sold by M. S. Shubert, Alpena. Cereal present. Not stamped.

No. 30807, B-139. Sample of sausage manufactured and sold by J. L. St. John, Alpena. Cereal 5.60%. Contains excess cereal.

No. 30810, B-142. Sample of sausage manufactured and sold by Dan Duchene, Alpena. Cereal 3.15%. Contains excess cereal.

No. 30811, B-143. Sample of sausage manufactured and sold by Dan Duchene, Alpena. Cereal 5.19%. Contains excess cereal.

No. 30835, B-144. Sample of sausage manufactured and sold by Albert Kruger, Alpena. Cereal present. Package or product not marked to indicate the presence of cereal.

No. 30836, B-145. Sample of sausage manufactured and sold by Ed. F. Kramm, Alpena. Cereal 4.88%. Contains excess cereal.

No. 30837, B-146. Sample of sausage manufactured and sold by J. Walle & Son, Alpena. Cereal present. Package or product not marked or stamped to indicate presence of cereal.

No. 30838, I-351. Sample of pork sausage procured from Fair Bros., St. Ignace. Cereal present. Package or product not marked or stamped to indicate presence of cereal.

No. 30839, I-352. Sample of pork sausage procured from Patrick E. Gallagher, St. Ignace. Cereal present. Package or product not marked or stamped to indicate presence of cereal.

No. 30846, M-5. Sample of sausage manufactured and sold by Chas. Frutig, 3107 Jefferson St., Detroit. Cereal 4.59%. Contains an excessive amount of cereal.

No. 30869, M-9. Sample of sausage manufactured and sold by Jos. Kempa, 2452 Jefferson Ave., Detroit. Cereal present. Package or product not marked or stamped to indicate presence of cereal.

No. 30870, M-10. Sample of sausage procured from Jos. Kempa, 2452 Jefferson Ave. W., Detroit. Cereal present. Package or product not marked or stamped to indicate presence of cereal.

No. 30876, M-11. Sample of sausage manufactured and sold by John A. Peters, 620 Dix Ave., Detroit. Cereal 5.48%. Contains an excessive amount of cereal.

No. 30905, P-1322. Sample of bologna sausage manufactured and sold by B. Haddix, Lake Odessa. Product contains cereal. Package or product not marked or stamped to indicate presence of cereal.

No. 30929, F-207. Sample of sausage manufactured and sold by John Sack, Edmore. Cereal 3.87%. Product contains an excessive amount of cereal.

No. 31018, F-209. Sample of bologna sausage manufactured and sold by A. E. Truman, Newaygo. Cereal 2.94%. Contains an excessive amount of cereal.

No. 31019, F-210. Sample of bologna sausage procured from Ben. Benson, Newaygo. Cereal present. Package or product not marked or stamped to indicate presence of cereal.

No. 31135, F-212. Sample of sausage manufactured and sold by Joe Kamantowsky, Grand Rapids. Cereal present. Package or product not marked or stamped to indicate presence of cereal.

No. 31136, F-213. Sample of Frankfurt sausage manufactured by Ray Caldwell, Grandville. Cereal 3.92%. Product contains an excessive amount of cereal.

No. 31137, F-214. Sample of sausage manufactured and sold by Wagnar Bros., Grand Rapids. Cereal 2.87%. Product contains an excessive amount of cereal.

No. 31138, F-215. Sample of sausage manufactured and sold by Henry Demmink, Grand Rapids. Cereal present. Package or product not marked or stamped to indicate the presence of cereal.

No. 31139, F-216. Sample of Frankfurt Sausage manufactured by Felspauch, Grand Rapids. Cereal 6.39%. Contains an excessive amount of cereal.

No. 31140, F-217. Sample of Frankfurt Sausage manufactured and sold by J. Verschoor, Grand Rapids. Cereal 6.02%. Contains an excessive amount of cereal.

No. 31039, B-149. Sample of sausage procured from Thomas Oben, Rogers City. Cereal 3.64%. Contains an excessive amount of cereal.

No. 31150, I-367. Sample of sausage manufactured and sold by Clem R. Brewer, Alma. Cereal 7.79%. Contains an excessive amount of cereal.

No. 31281, B-160. Sample of sausage manufactured and sold by E. L. Burdock, East Jordan. Cereal 3.08%. Contains an excessive amount of cereal.

No. 31389, B-181. Sample of sausage manufactured and sold by J. H. Roe, Sault Ste. Marie. Cereal 1.67%. Package or product not stamped to indicate the presence of cereal.

No. 31416, I-388. Sample of sausage manufactured and sold by John Pawloski, Pontiac. Cereal 4.83%. Sample contains an excessive amount of cereal.

No. 31483, G-1147. Sample of Frankfurt Sausage manufactured and sold by Wm. Walter, Wakefield. Cereal 2.88%. Contains an excessive amount of cereal.

No. 31493, I-390. Sample of sausage manufactured and sold by Thomas Thorn, Willis. Cereal 5.96%. Contains an excessive amount of cereal.

No. 31499, I-392. Sample of sausage manufactured and sold by F. W. Frisco, Wayne. Cereal 2.76%. Contains an excessive amount of cereal.

No. 31501, I-395. Sample of sausage manufactured and sold by Hoops Bros., Wayne. Cereal 4.29%. Contains an excessive amount of cereal.

No. 31518, I-396. Sample of sausage manufactured and sold by Ben. J. Jarrard, Holly. Cereal 3.98%. Contains an excessive amount of cereal.

No. 31523, I-397. Sample of sausage manufactured and sold by Campbell & Hood, Pontiac. Cereal 6.03%. Contains an excessive amount of cereal.

No. 31823, I-457. Sample of bologna sausage manufactured and sold by Copeland Griffin, Fowlerville. Cereal 6.69%. Contains an excessive amount of cereal.

No. 31933, G-1166. Sample of pork sausage manufactured and sold by A. St. Arnold, Iron Mountain. Cereal 14.15%. Contains an excessive amount of cereal.

No. 31943, B-226. Sample of pork sausage manufactured and sold by Arthur C. Ingersoll, Boyne City. Cereal 7.14%. Contains an excessive amount of cereal.

No. 31944, B-227. Sample of pork sausage in casings manufactured and sold by Arthur C. Ingersoll, Boyne City. Cereal 7.07%. Contains an excessive amount of cereal.

No. 31945, B-228. Sample of pork sausage manufactured and sold by John H. Lewis, Boyne City. Contains cereal. Package or product not stamped to indicate its presence.

No. 31947, B-230. Sample of pork sausage manufactured and sold by Wm. A. Sack, Boyne City. Cereal present. Not properly labeled.

No. 31948, B-231. Sample of bologna sausage manufactured and sold by Wm. A. Sutton, Boyne City. Cereal 6.94%. Contains an excessive amount of cereal.

No. 31949, B-232. Sample of pork sausage in casings manufactured and sold by Wm. A. Sutton, Boyne City. Cereal 4.16%. Contains an excessive amount of cereal.

No. 32025, G-1172. Sample of pork sausage procured from the Morrison Mercantile Co., Iron River. Cereal 2.50%. Package or product not marked to indicate the presence of cereal.

No. 32026, G-1173. Sample of pork sausage manufactured and sold by Joseph Parolari, Iron River. Cereal 5.44%. Contains an excessive amount of cereal.

No. 32027, G-1174. Sample of pork sausage manufactured and sold by the Consolidated Mercantile Co., Stambaugh. Contains cereal. No statement on the label to indicate its presence.

No. 32080, B-238. Sample of bologna sausage manufactured and sold by Shaffner & Son, West Branch. Cereal 2.64%. Package or product not marked or stamped to indicate the presence of cereal.

No. 32081, B-239. Sample of bologna sausage manufactured and sold by B. H. Braman, West Branch. Cereal 3.67%. Contains an excessive amount of cereal.

No. 33113, B-245. Sample of sausage procured from Geo. E. McKenzie, Johannesburg. Cereal 4.75%. Contains an excessive amount of cereal.

No. 33159, G-1181. Sample of bologna sausage manufactured by Steve Melka, Ishpeming. Cereal 3.92%. Sample contains an excessive amount of cereal.

No. 33161, G-1183. Sample of pork sausage manufactured by Steve Melka, Ishpeming, and procured from Fred Held, Ishpeming. Cereal 3.54%. Contains an excessive amount of cereal. Package or product not stamped to indicate cereal.

No. 33166, B-247. Sample of pork sausage manufactured and sold by A. Weston & Co., Newberry. Cereal 2.33%. Package or product not marked or stamped to indicate the presence of cereal.

No. 33531, B-261. Sample of pork sausage procured from T. H. Stevenson, Cheboygan. Cereal 6.77%. Contains an excessive amount of cereal.

No. 33547, G-1189. Sample of Frankfurt sausage procured from Fassenbender & Pearce, Marquette. Cereal present. Package or product not marked or stamped to indicate the presence of cereal.

No. 33698, I-521. Sample of bologna sausage manufactured and sold by M. E. Caner, Hudson. Contains an excessive amount of cereal.

No. 33723, B-265. Sample of bologna sausage manufactured and sold by Wm. Isaac, Rudyard. Product contains an excessive amount (8.57%) of cereal.

No. 33745, I-526. Sample of bologna sausage manufactured and sold by Geo. Forler, Niles. Produce contains cereal. Package or product not marked or stamped to indicate presence of cereal.

No. 33799, B-269½. Sample of sausage manufactured and sold by

W. M. Sutton, Boyne City. Product contains cereal. Package not stamped to indicate presence of cereal.

No. 33801, B-271. Sample of pork sausage manufactured and sold by W. A. Sack, Boyne City. Product contains cereal. Package not stamped to indicate presence of cereal.

No. 33802, B-272. Sample of bologna sausage manufactured and sold by W. A. Sack, Boyne City. Product contains cereal. Package or product not marked to indicate presence of cereal.

No. 33830, G-1199. Sample of pork sausage manufactured and sold by Frank Hausler, Munising. Product contains an excessive amount of cereal.

No. 33867, G-1206. Sample of pork sausage manufactured and sold by Sporrer Bros., Menominee. Product contains an excessive amount of cereal.

No. 33870, G-1209. Sample of pork sausage manufactured and sold by Wm. Landre, Menominee. Product contains cereal. Package not stamped to indicate the presence of cereal.

No. 33878, G-1210. Sample of pork sausage manufactured and sold by H. F. Sieman, Menominee. Not properly labeled.

No. 33950, B-280. Sample of sausage manufactured and sold by J. C. Vlack, Cedar. Product contains cereal. Package not stamped to indicate presence of cereal.

No. 33955, I-533. Sample of bologna sausage manufactured and sold by McKay & Ball, Decatur. Product contains an excessive amount of cereal.

SOUP CANS.

No. 31918, R-20. Samples of soup cans procured from Chas. E. Smith Co., Detroit. Cans show evidence of corrosion.

SUGAR (BLENDED).

No. 33408, R-29. Sample of blended sugar sold by C. F. Smith, Detroit. Percentage of ingredients other than maple not stated on the label. Label is deceptive.

SWEET CIDER.

No. 31438, F-221. Sample of sweet cider manufactured by Mikesen & Co., Traverse City. Net volume should be stated instead of net weight.

SYRUP.

No. 31478, P-1371. Sample of "Fancy Sugar Syrup" manufactured by the Bay State Maple Syrup Co., Boston, Mass., and handled by Godsmark, Durand Co., Battle Creek. Net weight not stated. Per cent of ingredients not stated. Not properly labeled.

No. 31479, P-1372. Sample of "Fancy Sugar Syrup" manufactured by the Bay State Maple Syrup Co., Boston, Mass., and sold by Godsmark, Durand Co., Battle Creek. The net weight and net capacity are both

blown in the bottle but with both the word "about" is used. Not properly labeled.

No. 31482, G-1146. Sample of syrup manufactured by Sprague, Warner & Co., Chicago. Label states "capacity" instead of net contents. Misbranded.

No. 31671, F-225. Sample of Mt. Mansfield Syrup manufactured by the Bay State Maple Syrup Co., Boston. Percentages of ingredients not stated on the label. Misbranded.

No. 31938, F-227. Sample of Silver Seal Syrup manufactured by Boyle and Williams, Bradford, Pa. Net volume not stated. Misbranded.

No. 31939, F-228. Sample of Gilt Edge Syrup manufactured by Downing & Bullis, Nashville. Misbranded in that net weight is stated instead of volume. Net weight short $2\frac{1}{2}$ oz.

No. 31942, F-226. Sample of Golden Tree Syrup manufactured by the New England Maple Syrup Co., Boston, Mass. Misbranded in that the words "capacity" and "about" are used in stating volume.

No. 32077, F-231. Sample of Eclipse Syrup manufactured by W. H. Edgar & Son, Detroit. Misbranded. Net contents stated in terms of weight instead of volume.

No. 32078, F-232. Sample of Cadillac Syrup manufactured by W. H. Edgar & Son, Detroit. Net contents stated in terms of weight instead of volume.

No. 33407, R-28. Sample of Maple Leaf Syrup manufactured by the Maple Leaf Syrup Co., Detroit. Misbranded in that the label is deceptive and misleading.

No. 33409, R-30. Samples of Maple Leaf Syrup manufactured by the Maple Leaf Syrup Co., Detroit. Misbranded in that the label is deceptive.

No. 33533, R-32. Sample of Pure Maple Syrup manufactured by Farley Bros., Almont. Cans have no label or statement of net contents.

No. 33550, I-516. Sample of Maple Syrup manufactured and sold by W. N. & R. H. Devine, Morgan. Misbranded in not having net volume stated.

No. 33933, I-10. Sample of Verhampshire Cane and Maple Syrup manufactured by C. M. Tice Co., Boston, and sold by the National Grocer Co., Port Huron. Statement of net contents not on principal label. Misbranded.

TABLE SAUCE.

No. 33216, B-254. Sample of Wilco Table Sauce manufactured by the Williams Bros. Co., Detroit, and sold by the National Grocer Co., Sault Ste. Marie. Misbranded in that the net volume is not stated.

TURPENTINE.

No. 34027, B-285. Sample of turpentine manufactured by the Noble Refining Co., Cleveland, Ohio, and procured from B. V. Funk, Grawn. Contains 38.66% mineral oil. Adulterated.

No. 34028, B-286. Sample of turpentine manufactured by the South-

ern States Turpentine Co., Cleveland, Ohio, and procured from T. Plamondon, Provement. Not a pure turpentine. Contains 19.2% mineral oil.

No. 35127, B-297. Sample of turpentine manufactured by the Noble Refining Co., Cleveland, Ohio, and procured from J. McCann, St. James. Not a pure turpentine. Contains 44.67% mineral oil.

VINEGAR.

No. 30866. Unofficial sample of vinegar. Below standard in acidity.

No. 31333. Unofficial sample of vinegar. Low in acidity.

No. 33031, G-1176. Sample of wine vinegar manufactured by Parodi & Ermenio, New York, and procured from A. Federichi, Hancock. Acidity 3.6%. Low in acidity.

CONCENTRATED COMMERCIAL FEEDING STUFFS.

During the year 324 commercial feeding stuffs were licensed by the Department; 278 samples were submitted to the laboratory for analysis and are herewith reported in the tabulated statement following, being a correct statement of all the official analyses made. Many unofficial samples of various kinds of feeds submitted by individuals from different sections of the state were analyzed during the year. These samples do not, however appear in the tabulated report.

The law requires that the statement of the chemical composition of the feed shall be made on the label and in the following terms,—Crude Protein, Crude Fibre, Nitrogen—free extract and Ether Extract. In analyses therefore, there are reported only these four constituents. It is, however, customary to determine in addition to these four the percentage of water and mineral matter in a given sample. As these terms appear continually in our reports, it may be well to describe briefly the meaning of each and something about the method by which they are determined in the laboratory.

Water: Everything contains a certain amount of water. Fresh pasture grass contains about 80% or four-fifths water, while dent corn contains about 10.6% and red clover hay about 15.3% water. Commercial feeding stuffs, as ordinarily found on the market, contain about 5-10% of water. To determine the amount of water in a feeding stuff, the chemist places a definite weighed portion of the fully ground material in a weighed dish. It is then dried at 212° for several hours and again weighed. The loss of weight represents the amount of water in the sample.

Ash: The ash of a feeding stuff is the amount of mineral matter contained in it. Thus in 100 lbs. of fresh pasture grass there is two pounds of ash. Red clover hay contains about 6.2 lbs. of ash in 100 pounds of hay. The amount of ash is determined by burning the sample that is left after the water is determined, again weighing the residue which is calculated and reported as the percent of ash in the sample.

Crude Protein: The Protein content of a feeding stuff is the most important constituent and the most expensive to buy. Protein is that part of a feeding-stuff that goes to build up the muscular tissues of the

body. The process of determining the protein is too complicated to present here. The nitrogen content is first found, which is then multiplied by 6.25 to get the crude protein, for the reason that about 16% of the plant protein is nitrogen ($100/16=6.25$). Cottonseed products are high in protein. One hundred pounds of cottonseed meal contains about 41 pounds of protein. Dent corn contains about 10 pounds of protein per 100 pounds, while red clover hay contains about 12 pounds per 100. Pasture grass contains only about 3.5 pounds of crude protein in 100 pounds.

Crude Fibre: This part of the feeding stuff consists mostly of cellulose and is the woody portion of the feed. It is determined by boiling a sample of the feed first with weak acid and then with a weak alkali washing out the dissolved matter. India corn contains about 2.2% of fibre, while clover hay contains about 25%.

Ether Extract: The ether extract represents the amount of crude fat in a feeding stuff. It is sometimes reported as such. In the case of seeds it is nearly all true fat, while in the case of leaves, stems, etc., it consists of chlorophyll, fat, wax, etc. It is determined by treating a weighed portion of the finely divided feed with ether. The ether dissolves only the fats, waxes, etc., contained in the feed.

Fat: The amount of fat in a feeding stuff is important, as it is the fats along with the carbohydrates that produce energy and heat in the animal body. Corn contains about 5 lbs. of fat per 100 lbs. alfalfa contains about 2.1 lbs. to the hundred, while fresh pasture grass contains about .8 lbs. of crude fat per 100 lbs.

Nitrogen-free Extract: This consists of the sugars, starches, pentoses, etc., of the plant. It is determined by difference and not by actual analysis. The total of all other constituents, viz.: water, ash, protein, fat, fibre, subtracted from 100 gives the amount of nitrogen-free extract in a sample.

Often one sees the term, carbohydrates, in the analysis of a feeding stuff, as some state laws require this designation. The nitrogen-free extract and the crude fibre together constitute the carbohydrates.

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Stockbridge Elevator Co., Jackson, Mich. No. 2188. Improved German Calf Meal	93
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No. 1974. Badger Brand Chicken Feed.....	80
Texas Cake & Linter Co., Dallas, Texas.	
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Union Seed & Fertilizer Co., 27 Beaver St., New York.	
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Valley City Milling Co., Grand Rapids, Mich.	
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No. 1998. Farmers Favorite Cow Feed.....	81
No. 2119. Farmers Favorite Bran.....	89
No. 2212. Farmers Favorite Middlings.....	95
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Watson Bros., Detroit, Mich.	
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Joseph Wellman's Sons, Port Huron, Mich.	
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Western Grain Products Co., Hammond, Ind.	
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TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).

Licence No.	Manufacturer and address.	Brand.	Guaranteed Found	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen—Free extract. Per cent.	Ether extract. Per cent.
1901	Almont Roller Mills, Almont, Mich.	Success Scratch Feed	Guaranteed Found	9.28 11.03	2.90 2.60	69.52 70.72	3.30 3.06
1902	Pillsbury Flour Mills Co., Minneapolis, Minn.	Pillsbury's Wheat Bran with ground screenings not exceeding mill run.	Guaranteed Found	14.50 16.45	12.00 11.40	52.45	4.00 4.46
1903	Pillsbury Flour Mills Co., Minneapolis, Minn.	Pillsbury's Wheat Standard "B" Middlings with ground screenings, etc.	Guaranteed Found	15.00 16.45	10.00 9.62	54.22	4.50 4.27
1904	Pillsbury Flour Mills Co., Minneapolis, Minn.	Pillsbury's Wheat "A" Middlings with ground screenings, etc.	Guaranteed Found	15.00	7.00		4.50
1905	Pillsbury Flour Mills Co., Minneapolis, Minn.	Pillsbury's Fancy Wheat Mixed Feed with ground screenings, etc.	Guaranteed Found	16.00	9.00		4.50
1906	Northwestern Consolidated Milling Co., Minneapolis, Minn.	Wheat Flour Middlings with ground screenings not exceeding mill run.	Guaranteed Found	15.50	6.00	57.00	4.50
1907	Northwestern Consolidated Milling Co., Minneapolis, Minn.	Wheat Standard Middlings with ground screenings, etc.	Guaranteed Found	15.00 15.84	11.00 8.43	53.00 57.12	4.50 4.71
1908	Western Grain Products Co., Hammond, Ind.	Hammond Dairy Feed	Guaranteed Found	16.50 16.46	11.00 11.50	50.63	3.50 4.31
1909	Western Grain Products Co., Hammond, Ind.	Chicago Alfalfa Horse & Mule Feed.	Guaranteed Found	10.00	15.00		3.00
1910	Western Grain Products Co., Hammond, Ind.	Hammond Horse Feed	Guaranteed Found	12.00 14.65	11.00 8.46	56.48	2.80 3.67
1911	Larowe Milling Co., Detroit, Mich.	Larowe Mash	Guaranteed Found	23.00 23.20	10.00 8.05	44.00 48.07	3.00 2.96
1912	Washburn-Crealy Co., Minneapolis, Minn.	Wheat Bran with ground screenings not exceeding mill run.	Guaranteed Found	14.50 14.53	12.00 11.40	52.77	4.00 5.05
1913	Washburn-Crealy Co., Minneapolis, Minn.	Wheat Standard Middlings with ground screenings, etc.	Guaranteed Found	15.00 16.45	9.50 8.30	55.52	5.00 4.93
1914	Washburn-Crealy Co., Minneapolis, Minn.	Wheat Mixed Feed with ground screenings not exceeding mill run.	Guaranteed Found	16.00 16.98	9.00 7.50	57.55	4.50 4.47
1915	Washburn-Crealy Co., Minneapolis, Minn.	Wheat Flour Middlings with ground screenings not exceeding mill run.	Guaranteed Found	17.00 18.11	6.50 6.65	56.39	5.00 5.20

1916	Wm. G. Crocker, Minneapolis, Minn.	Wheat Bran with ground screenings not exceeding mill run.	Guaranteed Found.	14.50 14.79	12.00 12.04	49.74	4.00 4.33
1917	Wm. G. Crocker, Minneapolis, Minn.	Wheat Standard Middlings with ground screenings, etc.	Guaranteed Found.	15.00 15.05	9.50 7.47	56.40	5.00 5.33
1918	Wm. G. Crocker, Minneapolis, Minn.	Wheat Mixed Feed with ground screenings not exceeding mill run.	Guaranteed Found.	16.00 16.63	9.00 7.43	57.41	4.50 4.97
1919	Wm. G. Crocker, Minneapolis, Minn.	Wheat Flour Middlings with ground screenings not exceeding mill run.	Guaranteed Found.	17.00 17.06	6.50 5.35	57.98	5.00 5.34
1920	O. Gandy & Co., South Whitley, Ind.	Standard A Poultry Feed.	Guaranteed Found.	9.50 11.20	2.50 2.77	71.56	3.32
1921	O. Gandy & Co., South Whitley, Ind.	Standard A Chick Feed.	Guaranteed Found.	10.00	2.50		
1922	The G. E. Conkey Co., Cleveland, Ohio.	Conkey's Starting Food for Chicks.	Guaranteed Found.	12.00 18.20	4.00 2.77	58.00 59.01	4.00 4.37
1923	Swift & Co., Chicago, Ill.	Swift's Digester Tankage.	Guaranteed Found.	60.00 61.60	3.00	8.00	11.51
1924	Swift & Co., Chicago, Ill.	Swift's Meat Meal.	Guaranteed Found.	46.00 56.00	3.00	6.00	6.80
1925	Swift & Co., Chicago, Ill.	Swift's Meat Scraps.	Guaranteed Found.	50.00 56.70	3.00	8.00	11.10
1926	Swift & Co., Chicago, Ill.	Swift's Blood Meal.	Guaranteed Found.	80.00 87.15	3.00		
1927	Ryde & Co., Chicago, Ill.	Ryde's Cream Calf Meal.	Guaranteed Found.	25.00 25.99	6.00 5.30		5.00 4.55
1928	Watson Bros., Detroit, Mich.	Excelsior Stock Food.	Guaranteed Found.	9.28 9.63	2.00 1.98	54.47 56.72	9.55 9.47
1929	Edwards & Loomis Co., Chicago, Ill.	Glen Oak Dairy Feed.	Guaranteed Found.	15.00	9.00	50.00	3.5
1930	Edwards & Loomis Co., Chicago, Ill.	Greeno Horse & Cattle Feed.	Guaranteed Found.	10.00 14.09	26.00 14.75	40.00 49.22	.50 .67
1931	Edwards & Loomis Co., Chicago, Ill.	Harvest Horse Feed.	Guaranteed Found.	9.00 13.13	15.00 10.30	50.00 61.73	2.00 1.99
1932	Edwards & Loomis Co., Chicago, Ill.	Pioneer Horse & Cattle Feed.	Guaranteed Found.	7.50	8.00	60.00	2.50
1933	Edwards & Loomis Co., Chicago, Ill.	Excelsior Horse Feed.	Guaranteed Found.	10.00	8.00	60.00	3.00

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).—Continued.

License No.	Manufacturer and address.	Brand.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract. Per cent.
1834	Edwards & Loomis Co., Chicago, Ill.	Cackie Fine Chick Feed with grit.	9.50 10.85	5.00 2.08	60.00 70.45	2.50 2.87
1835	Edwards & Loomis Co., Chicago, Ill.	Cackie Poultry Feed with grit	9.50 11.20	5.00 3.25	60.00 66.64	2.50 3.37
1836	Edwards & Loomis Co., Chicago, Ill.	Red Comb Pigeon Feed with grit.	10.00 12.42	5.00 3.05	60.00 66.73	2.50 3.50
1837	Edwards & Loomis Co., Chicago, Ill.	Red Comb Meat Mash.	15.00 16.10	8.00 6.55	45.00 56.50	4.00 3.95
1838	Edwards & Loomis Co., Chicago, Ill.	Red Comb Fine Chick Feed with grit.	10.00 10.94	5.00 2.45	60.00 71.15	2.50 3.33
1839	Edwards & Loomis Co., Chicago, Ill.	Red Comb Coarse Chick Feed with grit.	10.00 12.25	5.00 2.35	60.00 67.37	2.50 2.72
1840	Edwards & Loomis Co., Chicago, Ill.	Pound Squab Pigeon Feed.	10.00 11.73	5.00 3.80	60.00 70.68	2.50 4.02
1841	Edwards & Loomis Co., Chicago, Ill.	Red Comb Poultry Feed with grit.	10.00 11.03	5.00 2.70	60.00 70.02	2.50 2.50
1842	Edwards & Loomis Co., Chicago, Ill.	Morning Glory Scratch Feed with grit.	9.50 11.02	5.00 3.35	60.00 70.31	2.50 3.17
1843	Allegan Milling Co., Allegan Mich.	A. M. C. Bran.	14.09 15.84	9.35 7.95	65.21 56.98	3.65 4.05
1844	Amendt Milling Co., Monroe, Mich.	AMCO Poultry Mash.	18.99 20.12	7.80 7.95	61.18 52.72	3.13 5.46
1845	Scotfield & Son, Jackson, Mich.	Scotfield's Dry Mash.	17.41	8.00	53.21	4.83
1846	Millenbach Bros. Co., Detroit, Mich.	Millenbach's Mixed Beef Scraps	45.00 46.72			10.00 11.66
1847	J. E. Bartlett Co., Jackson, Mich.	National Gluten Feed.	25.00 21.70	10.00 11.15	50.71	6.00 2.29
1848	Golden Grain Milling Co., East St. Louis, Ill.	Golden Grain Horse & Mule Feed.	10.00 11.15	12.00 11.02	55.00 61.38	2.00 2.12

1949	East St. Louis Cotton Oil Co., National Stock Yards, Ill.	Choice Cotton Seed Meal	Guaranteed Found	41.00 43.14	10.00 7.90	26.00 27.76	7.00 9.15
1950	Jos. Schlitz Brewing Co., Milwaukee, Wis.	Schlitz Purity Dried Grains	Guaranteed Found	24.00 27.13	16.00 16.30	40.00 40.57	6.00 5.90
1951	American Hominy Co., Indianapolis, Ind.	Homco Feed	Guaranteed Found	9.50 10.33	7.00 5.63	58.00 65.26	7.00 6.88
1952	American Hominy Co., Indianapolis, Ind.	Homocline Feed	Guaranteed Found	17.00 17.15	7.00 6.47	52.00 55.01	5.00 5.12
1953	Corn Products Refining Co., New York	Diamond Hog Meal	Guaranteed Found	20.00 21.35	13.00 7.65	50.00 46.28	9.00 17.59
1954	Corn Products Refining Co., New York	Diamond Corn Gluten Meal	Guaranteed Found	40.00 43.75	4.00 1.30	50.00 40.55	1.50 2.15
1955	Corn Products Refining Co., New York	Buffalo Corn Gluten Feed	Guaranteed Found	23.00 23.54	8.50 7.40	50.00 54.45	1.00 2.11
1956	Evans Milling Co., Indianapolis, Ind.	Evans Hominy Feed	Guaranteed Found	10.00	7.00	55.00	7.50
1957	Grand Rapids Brewing Co., Grand Rapids, Mich.	Dried Brewers Grains	Guaranteed Found	25.37	13.50	37.78	7.50
1958	Cudahy Bros. Co., Cudahy, Wis.	Badger Brand Blood Meal	Guaranteed Found	80.00 80.32	1.00	3.00	.05 .88
1959	Cudahy Bros. Co., Cudahy, Wis.	Badger Brand Poultry Bone	Guaranteed Found	25.00 26.16	1.00	3.00	6.00
1960	Cudahy Bros. Co., Cudahy, Wis.	Badger Meat Meal	Guaranteed Found	80.00 83.00	5.00	1.00	8.00 9.71
1961	King Milling Co., Lowell, Mich.	King Corn Meal	Guaranteed Found	9.54 9.97	3.60 2.71	66.99 69.82	7.35 7.26
1962	King Milling Co., Lowell, Mich.	King Corn and Oat Feed	Guaranteed Found	10.06 10.50	5.54 4.65	65.09 68.95	6.63 6.40
1963	Laxo Cake Meal Co., Chicago, Ill.	Old Process "Laxo" Cake Meal	Guaranteed Found	25.00 24.94	12.00 10.26	43.25	6.00 7.40
1964	United States Frumentum Co., Detroit, Mich.	Frumentum Hominy Feed	Guaranteed Found	9.50 11.46	7.00 4.37	63.00 66.56	7.30 9.13
1965	American Maling Co., Detroit, Mich.	Chicken Feed	Guaranteed Found	12.95 11.20	4.90 8.58	63.94 65.02	3.00 2.73
1966	S. P. Davis & Co., Little Rock, Ark.	Good Luck Cotton Seed Meal	Guaranteed Found	41.00 41.13	10.50 6.85	24.00 28.02	7.00 9.45

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).—Continued.

Licenses No.	Manufacturer and address.	Brand.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract. Per cent.
1967	Clover Leaf Milling Co., Buffalo, N. Y.	Clover Leaf Calf Meal	25.00 26.34	7.00 6.13	48.22	7.00 7.13
1968	Henderson Milling Co., Grand Rapids, Mich.	Corn meal	8.75 9.10	1.25 1.37	73.16	4.20 4.01
1969	The Toledo Seed & Oil Co., Toledo, Ohio.	Major Brand Old Process Oil Meal	30.00 30.19	10.00 7.75	42.86	6.45
1970	F. W. Brode Co., Memphis, Tenn.	Owl Brand Cotton Seed Meal	41.00 41.74	10.00 5.07	6.60 27.96	10.88
1971	The Metzger Seed & Oil Co., Toledo, Ohio.	Old Process Oil Meal	30.00 33.08	10.00 6.71	47.29	5.00 6.12
1972	The Commercial Milling Co., Detroit, Mich.	Hankel's Chop Feed	8.00 8.84	11.50 8.10	66.78	5.00 3.93
1973	The Commercial Milling Co., Detroit, Mich.	Hankel's Coarse Feed Corn Meal	9.01 9.63	.65 .48	74.38 76.32	3.06 3.76
1974	L. Tereles & Co., Milwaukee, Wis.	Badger Brand Chicken Feed	10.00 9.98	5.00 3.79	68.27	2.55 2.83
1975	Everett-Augenhaupt & Co., Waseca, Minn.	E-A-CO Wheat Middlings and ground screenings	15.00	10.00		3.00
1976	Everett-Augenhaupt & Co., Waseca, Minn.	E-A-CO Wheat Bran and ground screenings	15.00	12.00		3.00
1977	Commercial Milling Co., Detroit, Mich.	Standard Wheat Middlings with ground screenings, etc.	16.00 16.54	9.90 6.30	56.84	5.50 5.27
1978	Commercial Milling Co., Detroit, Mich.	Wheat Mixed Feed with ground screenings, etc.	15.00 14.88	11.00 9.80	58.82	4.50 4.45
1979	Sprague-Warner & Co., Chicago, Ill. (Quaker Oats Co., Chicago, Ill., Mfrs.)	Chico Brand Chick Feed	10.00	5.00	60.00	2.50
1980	Sprague-Warner & Co., Chicago, Ill. (Quaker Oats Co., Chicago, Ill., Mfrs.)	Cero Brand Poultry Feed	10.00 11.29	5.00 2.60	60.00 74.04	2.50 3.52
1981	Buckeye Cotton Oil Co., Cincinnati, Ohio.	"Buckeye" Cottonseed Meal	38.62 38.76	12.00 10.54	32.00 29.45	6.50 7.80

1962	John C. Martin & Co., Mineral Point, Wis.	Martin's Calf Feed	Guaranteed Found	26.00	6.00	40.00	6.00
				28.35	4.55	46.93	8.12
1963	J. W. Barwell, Waukegan, Ill.	Blackford's Pig Meal	Guaranteed Found	18.00	7.00		5.00
				20.13	7.45	55.07	4.95
1964	J. W. Barwell, Waukegan, Ill.	Blackford's "Mammoth Chick" Milk Mash	Guaranteed Found	20.00	7.50		4.00
				21.53	4.73	43.12	4.41
1965	J. W. Barwell, Waukegan, Ill.	Blackford's "Fill the Basket" Egg Mash	Guaranteed Found	19.00	10.00		4.00
				19.43	3.50	54.12	4.76
1966	Amendt Milling Co., Monroe, Mich.	AMCO Pigeon Feed	Guaranteed Found	10.00	5.00	53.00	2.50
				12.86	4.00	66.20	4.01
1967	Amendt Milling Co., Monroe, Mich.	AMCO Scratch Grain	Guaranteed Found	9.54	4.30	63.51	2.40
				12.07	2.80	69.39	2.79
1968	Amendt Milling Co., Monroe, Mich.	AMCO Chick Feed	Guaranteed Found	9.19	4.00	69.75	2.50
				11.20	2.15	68.63	3.22
1969	Amendt Milling Co., Monroe, Mich.	AMCO No. 2 Chop Feed	Guaranteed Found	7.87	10.95	64.62	2.92
				12.75	7.25	60.76	6.83
1990	Menominee River Sugar Co., Menominee, Mich.	Sugar Beet Molasses	Guaranteed Found	9.36		58.56	
1991	Huron Milling Co., Harbor Beach, Mich.	Jenks Mixed Feed	Guaranteed Found	12.18	5.85		4.60
				14.88	8.10	59.43	4.30
1992	Huron Milling Co., Harbor Beach, Mich.	Jenks Gluten Feed	Guaranteed Found	22.00	8.00		3.00
				22.49	6.80	57.34	4.82
1993	Sheffield-King Milling Co., Minneapolis, Minn.	"Whitehops" Middlings	Guaranteed Found	16.25	7.29		5.05
				16.71	6.98	58.29	5.12
1994	Sheffield-King Milling Co., Minneapolis, Minn.	"Fairybow" Middlings	Guaranteed Found	17.15	8.96		5.01
				17.83	9.13	56.55	4.97
1995	Pratt Food Co., Philadelphia, Pa.	Pratt's Baby Chick Food	Guaranteed Found	11.60	3.00	65.00	2.50
				13.04	2.68	61.83	2.30
1996	Midland Linseed Products Co., Minneapolis, Minn.	Midland Brand Pure Old Process Ground Linseed Cake	Guaranteed Found	32.00	9.80	36.00	5.00
				35.28	6.95	37.94	6.90
1997	Valley City Milling Co., Grand Rapids, Mich.	Farmers Favorite Coarse Corn Meal	Guaranteed Found	8.22	1.90	69.87	3.05
				11.55	2.44	71.14	4.84
1998	Valley City Milling Co., Grand Rapids, Mich.	Farmers Favorite Cow Feed	Guaranteed Found	14.18	7.50	58.20	4.25
				15.40	8.30	59.25	4.18
1999	The Ubaldo Milling Co., Cincinnati, Ohio	Union Grains, Ubaldo, Biles Ready Dairy Ration	Guaranteed Found	24.00	9.00	50.00	7.00
				23.89	8.95	46.69	6.95

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).—Continued.

License No.	Manufacturer and address.	Brand.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen—Free extract. Per cent.	Ether extract. Per cent.
2000	Kellogg Toasted Corn Flake Co., Battle Creek, Mich.	Corn Flake Feed	Guaranteed Found. 6.91 8.75	.42 .10	78.63 76.91	2.15 1.69
2001	Kellogg Toasted Corn Flake Co., Battle Creek, Mich.	Dried Brewers Grains	Guaranteed Found. 25.11 25.03	12.75 13.17	47.07 46.98	5.07 4.95
2002	Kellogg Toasted Corn Flake Co., Battle Creek, Mich.	Broken Wheat Biscuit Feed	Guaranteed Found. 10.15 13.04	2.60 2.17	76.43 74.69	1.07 1.14
2003	Star of the West Milling Co., Frankenthuth, Mich.	"Special Feed"	Guaranteed Found. 8.57	8.97	67.27	3.65
2004	National Food Co., Fond du Lac, Wis.	No-Milk Calf Food	Guaranteed Found. 17.25	6.00		
2005	A. L. Hibbard, Sturgis, Mich.	No. 1 Chop.	Guaranteed Found. 8.84 8.84	4.75 4.35	71.05 69.41	4.30 4.40
2006	Douglas & Co., Cedar Rapids, Iowa.	Douglas Corn Gluten Feed	Guaranteed Found. 23.00 22.83	8.00 6.02	52.00 55.35	2.00 2.55
2007	The Memphis Cotton Hull & Fibre Co., Memphis, Tenn.	"Cyclone Feed Meal"	Guaranteed Found. 20.00 21.44	23.00 8.85	38.00 53.53	3.00 4.29
2008	Northrup King & Co., Minneapolis, Minn.	Sterling Hen Feed	Guaranteed Found. 11.67	4.61	65.06	3.42
2009	Northrup King & Co., Minneapolis, Minn.	Sterling Chick Feed	Guaranteed Found. 12.25	4.51	61.87	2.70
2010	Northrup King & Co., Minneapolis, Minn.	Sterling Baby Chick Starter	Guaranteed Found. 12.25	4.51	61.87	2.70
2011	Postum Cereal Co. Ltd., Battle Creek, Mich.	Pearl Meal	Guaranteed Found. 7.00 7.44	1.00 .60	75.00 73.68	.50 1.81
2012	Postum Cereal Co., Ltd., Battle Creek, Mich.	C X X Feed	Guaranteed Found. 15.00 20.04	24.00 14.22	42.00 55.46	2.00 3.00
2013	Postum Cereal Co., Ltd., Battle Creek, Mich.	G. N. Feed	Guaranteed Found. 9.00 11.73	2.50 1.25	53.00 77.83	1.00 1.54
2014	Postum Cereal Co. Ltd., Battle Creek, Mich.	Special Feed	Guaranteed Found. 9.00 10.06	.75 .62	75.00 73.64	.50 .60

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2015	Postum Cereal Co., Ltd., Battle Creek, Mich.	Barley Bran.....	Guaranteed Found.....	6.00 12.25	32.00 13.90	45.00 61.80	1.25 2.60
2016	Postum Cereal Co. Ltd., Battle Creek, Mich.	Chicken Feed.....	Guaranteed Found.....	8.00 11.29	15.00 3.78	55.00 70.38	1.00 1.70
2017	Postum Cereal Co., Ltd., Battle Creek, Mich.	Flaked Corn Feed.....	Guaranteed Found.....	8.00 8.23	5.00 1.20	70.00 80.68	1.00 2.70
2018	Postum Cereal Co., Ltd., Battle Creek, Mich.	Cereal Feed.....	Guaranteed Found.....	11.00 12.96	18.00 14.33	52.00 59.52	1.75 2.90
2019	The Quaker Oats Co., Chicago, Ill.	Mas-All Corn Feed.....	Guaranteed Found.....	8.00 8.23	2.00 1.92	80.00 80.45	1.40 1.45
2020	The Quaker Oats Co., Chicago, Ill.	Old Tavern Chick Feed.....	Guaranteed Found.....	10.00 10.07	5.00 2.25	60.00 63.44	2.50 2.72
2021	The Quaker Oats Co., Chicago, Ill.	Old Tavern Scratch Feed.....	Guaranteed Found.....	10.00 10.24	5.00 2.16	60.00 63.47	2.50 3.01
2022	The Quaker Oats Co., Chicago, Ill.	Schumacher Little Chick Feed.....	Guaranteed Found.....	10.00 10.35	5.00 2.40	60.00 71.13	2.50 3.57
2023	The Quaker Oats Co., Chicago, Ill.	Schumacher Scratch Grains.....	Guaranteed Found.....	10.00 11.81	5.00 2.65	60.00 71.36	2.50 3.43
2024	The Quaker Oats Co., Chicago, Ill.	Quaker Scratch Grains.....	Guaranteed Found.....	10.00	5.00	60.00	2.50
2025	The Quaker Oats Co., Chicago, Ill.	Schumacher Calf Meal.....	Guaranteed Found.....	19.00 19.34	3.00 1.95	54.00 61.46	8.90 6.85
2026	The Quaker Oats Co., Chicago, Ill.	Schumacher Stock Feed.....	Guaranteed Found.....	10.00 11.55	10.00 9.25	62.00 61.57	3.25 4.73
2027	The Quaker Oats Co., Chicago, Ill.	Victor Feed.....	Guaranteed Found.....	8.00 8.31	12.00 10.10	62.00 64.26	3.00 5.58
2028	The Quaker Oats Co., Chicago, Ill.	Quaker Chick Feed.....	Guaranteed Found.....	10.00	5.00	60.00	2.50
2029	The Quaker Oats Co., Chicago, Ill.	American Hen Scratch Grains.....	Guaranteed Found.....	10.00 12.07	5.00 2.10	60.00 65.56	2.50 3.10
2030	Cancelled.....	Guaranteed Found.....	Guaranteed Found.....	.....	.....	.....	.....
2031	Cheboygan Flour Mill Co., Cheboygan, Mich.	Corn Germ Meal.....	Guaranteed Found.....	10.59 12.95	2.30 1.15	64.26 68.13	5.85 5.20
2032	Cheboygan Flour Mill Co., Cheboygan, Mich.	Highland Scratch Feed.....	Guaranteed Found.....	11.99 12.16	3.25 3.67	67.41 68.44	3.75 3.18

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915.)—Continued.

Analysis No.	Manufacturer and address.	Brand.	Guaranteed Found.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen—Free extract. Per cent.	Ether extract Per cent.
2033	The West Branch Flour Mfg. Co., West Branch, Mich.	Street Car Feed.	Guaranteed Found.	11.99 12.25	2.40 3.63	66.08 67.09	4.03 3.78
2034	J. E. Bartlett Co., Jackson, Mich.	Bartlett's Malt Sugar Grains.	Guaranteed Found.	20.00 20.56	15.00 19.65	44.40	6.00 5.92
2035	J. E. Bartlett Co., Jackson, Mich.	Michigan "Farmer" Brand Cotton Seed Meal.	Guaranteed Found.	41.00 42.00	10.00 12.65	20.00 23.19	7.00 8.96
2036	McLaughlin Ward & Co., Jackson, Mich.	Crown Scratch Feed.	Guaranteed Found.	10.00 10.06	3.00 2.70	68.00 66.80	5.00 2.96
2037	Clinton Sugar Refining Co., Clinton, Iowa.	Clinton Corn Gluten Feed.	Guaranteed Found.	23.00 24.36	8.00 6.47	55.00 56.31	3.00 3.04
2038	Wm. Fluemer, Mt. Clemens, Mich.	Fluemer's Chicken Feed.	Guaranteed Found.	10.50 10.76	4.55 2.10	12.30 73.94	3.15 3.10
2039	American Linseed Co., N. Y. & Chicago.	Old Process Linseed Oil Meal.	Guaranteed Found.	34.00 34.04	9.00 7.07	49.00 35.23	6.00 8.12
2040	Grand Rapids Grain & Milling Co., Grand Rapids, Mich.	Purity Scratch Feed.	Guaranteed Found.	9.35 12.77	4.62 4.27	67.00 67.24	3.62 4.17
2041	Chapin & Co., Hammond, Ind.	Union Dairy Ration.	Guaranteed Found.	26.00 28.00	10.00 10.76	50.00 43.61	5.50 6.64
2042	Chapin & Co., Hammond, Ind.	Ajax Flakes.	Guaranteed Found.	30.00 30.01	14.00 10.64	30.00 33.02	11.00 11.50
2043	Hankey Milling Co., Inc., Peotockey, Mich.	Bran with Mill Run of screenings.	Guaranteed Found.	13.56	9.57	57.68	3.75
2044	Hankey Milling Co., Inc., Peotockey, Mich.	Feed Meal.	Guaranteed Found.	9.71	3.37	70.24	5.32
2045	American Milling Co., Peoria, Ill.	Sucrose Dairy Feed.	Guaranteed Found.	16.60 18.90	13.00 11.25	46.00 50.43	3.80 5.07
2046	American Milling Co., Peoria, Ill.	Sucrose Scratch Feed.	Guaranteed Found.	10.00 10.33	5.00 2.40	65.00 74.42	2.60 3.95
2047	American Milling Co., Peoria, Ill.	Sucrose Scratch Feed with 5 per cent grit.	Guaranteed Found.	10.00 10.68	5.00 2.68	65.00 70.19	2.60 2.97

2048	American Milling Co., Peoria, Ill.	Chuck Chuck Scratch Feed	Guaranteed Found.	10.00 10.59	5.00 2.75	65.00 69.84	2.50 2.98
2049	American Milling Co., Peoria, Ill.	Chuck Chuck Scratch Feed with 5 per cent grit.	Guaranteed Found.	10.00 11.81	5.00 2.90	65.00 65.92	2.50 2.57
2050	American Milling Co., Peoria, Ill.	Tip Top Scratch Feed.	Guaranteed Found.	10.00 11.37	4.50 3.10	70.00 69.70	2.50 2.98
2051	American Milling Co., Peoria, Ill.	Tip Top Scratch Feed with 5 per cent grit.	Guaranteed Found.	10.00 10.59	4.50 3.80	70.00 71.48	2.50 2.47
2052	American Milling Co., Peoria, Ill.	Tip Top Chick Feed.	Guaranteed Found.	10.00 10.59	5.00 2.58	65.00 70.10	2.50 2.88
2053	American Milling Co., Peoria, Ill.	Tip Top Chick Feed with 5 per cent grit.	Guaranteed Found.	10.00 10.24	5.00 3.60	65.00 59.25	2.50 2.98
2054	American Milling Co., Peoria, Ill.	Sureness Chick Feed.	Guaranteed Found.	10.00 10.24	5.00 3.55	65.00 74.94	2.50 3.07
2055	American Milling Co., Peoria, Ill.	Sureness Chick Feed with 5 per cent grit.	Guaranteed Found.	10.00 9.98	5.00 2.70	65.00 59.77	2.50 2.92
2056	The Larowe Milling Co., Detroit, Mich.	Larro-Feed.	Guaranteed Found.	19.00 19.95	14.00 12.13	50.00 51.12	3.00 3.75
2057	M. C. Peters Mill Co., Omaha, Neb.	Peters' June Pasture Dairy Meal.	Guaranteed Found.	10.00 12.09	26.00 21.02	44.00 46.84	.50 .98
2058	Rosch & Seiber Co., Houghton, Mich.	Roscoe Brand Scratch Feed.	Guaranteed Found.	10.00 10.15	5.00 1.25	66.11	2.50 3.25
2059	Bad Axe Grain Co., Bad Axe, Mich.	Egg Brand Poultry Feed.	Guaranteed Found.	10.94 11.29	2.86 2.60	70.73 72.28	3.04 3.33
2060	Bad Axe Grain Co., Bad Axe, Mich.	Axe Brand Ground Feed.	Guaranteed Found.	12.42 12.43	7.13 6.60	83.63 87.08	3.14 3.06
2061	Spratt's Patent (America) Limited, Newark, N. J.	Spratt's Poultry Food No. 3.	Guaranteed Found.	20.00 21.61	2.00 .35	80.00 84.40	2.50 2.46
2062	Spratt's Patent (America) Limited, Newark, N. J.	Ground Meat.	Guaranteed Found.	43.00 61.34	2.00	.70	10.00 10.02
2063	Durrah Milling Co., Big Rapids, Mich.	Unbolted Corn Meal.	Guaranteed Found.	11.38 10.59	4.10 1.80	63.37 71.06	4.65 4.06
2064	Humphreys-Godwin Co., Memphis, Tenn.	Dixie Brand Cottonseed Meal.	Guaranteed Found.	38.62 40.86	12.00 10.83	24.00 23.14	6.00 7.35
2065	Joe. Wellman's Sons, Port Huron, Mich.	Mixed Chicken Feed.	Guaranteed Found.	9.01	3.30	70.88	3.40

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).—Continued.

Licence No.	Manufacturer and address.	Brand.		Protein. Per cent.	Crude fibre. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract. Per cent.
2066	Portland Milling Co., Portland, Mich.	Champion Mixed Feed with ground screenings not exceeding mill run.	Guaranteed. Found.	13.56 14.33	8.47 7.78	59.54 59.71	3.58 3.72
2067	Portland Milling Co., Portland, Mich.	Puritas Corn & Oat Feed.	Guaranteed. Found.	10.41 10.67	6.38 6.06	68.43 67.96	4.23 4.00
2068	Thunder Bay Milling Co., Alpena, Mich.	Bradford's Coarse Corn Meal.	Guaranteed. Found.	7.87	1.85	75.70	2.70
2069	C. C. Wright, Owosso, Mich.	Occident Chick Feed.	Guaranteed. Found.	10.15 10.24	2.90 3.10	69.87 69.60	2.95 2.75
2070	C. C. Wright, Owosso, Mich.	Wright's Mixture (Scratch Feed).	Guaranteed. Found.	10.41	2.75	70.24	2.75
2071	American Linseed Co., Chicago, Ill.	Cleveland Linseed Oil Meal.	Guaranteed. Found.	36.00 36.05	9.00 8.43	42.00 40.09	2.00 2.72
2072	Dewey Bros. Co., Blanchester, Ohio.	Eagle Three D Grains.	Guaranteed. Found.	30.00 30.28	13.00 12.85	30.00 36.57	10.00 14.60
2073	Hirt & Begley Linseed Co., Chicago, Ill.	H & B Ground Linseed Cake.	Guaranteed. Found.	34.00 34.83	9.00 7.45	42.00 35.77	8.00 10.20
2074	W. C. Nothern, Little Rock, Ark.	Bee Brand Cotton Seed Meal.	Guaranteed. Found.	41.00 44.40	10.00 9.00	26.22	6.50 7.63
2075	Van Eyck Weurding Milling Co., Holland, Mich.	Poultry Feed.	Guaranteed. Found.	10.41 10.24	2.15 2.85	62.29 63.12	2.80 3.64
2076	Purina Mills, Branch Raleton Purina Co., St. Louis, Mo.	Purina Dairy Feed.	Guaranteed. Found.	19.00 20.74	15.00 16.95	45.00 44.46	3.50 3.40
2077	Purina Mills, Branch Raleton Purina Co., St. Louis, Mo.	Purina Feed with Molasses.	Guaranteed. Found.	9.30 9.53	11.70 12.00	59.20 59.33	1.70 2.76
2078	F. Becker, Grand Rapids, Mich.	Feed Corn Meal.	Guaranteed. Found.	7.79 8.84	1.55 1.40	67.41 77.09	3.75 3.25
2079	Purina Mills, Branch Raleton Purina Co., St. Louis, Mo.	Purina Chick Feed.	Guaranteed. Found.	11.00 12.15	4.00 1.53	65.00 72.89	3.00 3.18
2080	Purina Mills, Branch Raleton Purina Co., St. Louis, Mo.	Purina Scratch Feed.	Guaranteed. Found.	11.00 11.99	4.00 2.55	65.00 71.15	3.00 2.97

2081	Purina Mills, Branch Ralston Purina Co., St. Louis, Mo.	Purina Chicken Chowder with Charcoal	Guaranteed Found	17.00 18.90	9.00 8.10	56.00 54.12	3.00 4.03
2082	Darling & Co., Chicago, Ill.	Darling's High Protein Meat Scraps	Guaranteed Found	55.00 37.05	3.00		.50 8.29
2083	Darling & Co., Chicago, Ill.	Darling's Standard Meat Scraps	Guaranteed Found	45.00 49.61	3.00		.50 5.76
2084	Darling & Co., Chicago, Ill.	Darling's Meat Crisps	Guaranteed Found	75.00 79.80	3.00		.50 6.45
2085	Darling & Co., Chicago, Ill.	Darling's Granulated Bone	Guaranteed Found	20.00 26.25	3.00		.50 4.59
2086	Darling & Co., Chicago, Ill.	Darling's 60 per cent Protein Digester Tankage	Guaranteed Found	60.00 60.64	3.00		.50 2.40
2087	Armour Fertilizer Works, Chicago, Ill.	Armours Granulated Bone	Guaranteed Found	23.00 25.46			2.00
2088	Armour Fertilizer Works, Chicago, Ill.	Meat Meal	Guaranteed Found	60.00 67.38	2.00		10.00
2089	Armour Fertilizer Works, Chicago, Ill.	Blood Meal	Guaranteed Found	80.00 81.38	2.00		
2090	Amendt Milling Co., Monroe, Mich.	AMCO Alfalfa Meal	Guaranteed Found	12.00 13.83	35.00 29.05	38.30	.50 1.57
2091	Dwight M. Baldwin, Jr., Minneapolis, Minn. (Baldwin Flour Mills)	Baldwin Flour Mills Wheat Bran with not exceeding mill run of ground screenings	Guaranteed Found	14.50 14.96	12.00 10.42		4.09 5.00
2092	Dwight M. Baldwin, Jr., Minneapolis, Minn. (Baldwin Flour Mills)	Baldwin Flour Mills Wheat Shorts with not exceeding mill run of ground screenings	Guaranteed Found	15.00 16.71	11.00 6.15	55.95	5.00 6.00
2093	Dwight M. Baldwin, Jr., Minneapolis, Minn. (Baldwin Flour Mills)	Baldwin Flour Mills Wheat Flour Middlings with not exceeding mill run of ground screenings	Guaranteed Found	16.50 16.71	7.00 5.07	59.53	5.00 5.36
2094	Continental Cereal Co., Peoria, Ill.	Continental Gluten Feed	Guaranteed Found	29.00 28.89	10.50 7.05	40.00 47.59	10.50 7.53
2095	Michigan Cereal Co., Port Huron, Mich.	Poa Bran	Guaranteed Found	20.91	20.83	45.12	2.02
2096	J. E. Bartlett Co., Jackson, Mich.	Creamo Brand Cotton Seed Feed Meal	Guaranteed Found	20.00 20.30	25.00 36.60	25.28	4.00 4.45
2097	Model Milling Co., Port Huron, Mich.	Model Scratch Feed	Guaranteed Found	10.50 10.41	2.30 1.70	71.10 74.34	3.45 3.45
2098	Model Milling Co., Port Huron, Mich.	Model Egg Mash	Guaranteed Found	13.21 18.29	5.25 5.14	63.34 59.99	4.70 4.34

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).—Continued.

Lot No.	Manufacturer and address.	Brand.	Guaranteed Found.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen—Free extract. Per cent.	Ether extract. Per cent.
2099	B. B. Hyde, Port Huron, Mich.	Ideal Poultry Feed	Guaranteed Found.	10.15 10.08	2.25 2.40	71.33 72.98	3.87 3.53
2100	Cancelled		Guaranteed Found.				
2101	J. E. Bartlett Co., Jackson, Mich.	Michigan Farmer Brand of Tankage.	Guaranteed Found.	33.44			13.54
2102	Frank J. Stuart, Pontiac, Mich.	Stuart's Chicken Feed.	Guaranteed Found.	8.96 9.71	3.32 1.96	70.01	2.85 2.89
2103	C. E. DePuy Co., Pontiac, Mich.	Peerless Scratch Feed.	Guaranteed Found.	9.89 11.20	2.12 2.83	69.90 70.47	2.82 2.86
2104	C. E. DePuy Co., Pontiac, Mich.	Victor Chick Feed.	Guaranteed Found.	9.71 11.20	2.60 2.35	74.12 67.02	2.40 2.85
2105	McMoran Milling Co., Port Huron, Mich.	Protean Dairy Feed.	Guaranteed Found.	18.99 24.49	3.70 9.15	62.76 49.55	3.00 3.11
2106	W. J. Byrnes & Co., Chicago, Ill.	Daisy Chick Feed.	Guaranteed Found.	10.00 12.25	5.00 2.40		2.50 2.99
2107	W. J. Byrnes & Co., Chicago, Ill.	Royal Poultry Feed.	Guaranteed Found.	10.00	5.00	70.61	3.00
2108	Lichtenberg & Son, Detroit, Mich.	Farnel Horse Feed.	Guaranteed Found.	13.95 11.28	7.09 7.15	56.93 64.52	3.45 3.75
2109	Lichtenberg & Son, Detroit, Mich.	Farnel Summer Horse Feed.	Guaranteed Found.	14.00 10.40	7.46 6.97	57.41 63.39	3.62 3.53
2110	Lichtenberg & Son, Detroit, Mich.	Farnel Dairy Feed.	Guaranteed Found.	19.35 22.49	8.38 8.90	49.10 64.33	2.43 4.50
2111	Lichtenberg & Son, Detroit, Mich.	Lichtenberg's Chop Feed.	Guaranteed Found.	11.11 10.77	3.65 3.95	66.51 72.50	3.28 4.43
2112	J. J. Badenoch Co., Chicago, Ill.	C-e-lay	Guaranteed Found.	9.60 10.41	5.00 3.72	65.50 63.79	2.90 2.83
2113	Edwards & Loomis Co., Chicago, Ill.	Red Comb Alfalfa Meal.	Guaranteed Found.	13.50 17.24	30.00 29.25	34.70	1.00 2.14

		Winner Chop Feed.	Guaranteed Found.	9.00 10.76	10.00 7.62	70.00 63.74	5.00 6.03
2114	David Scott Flour Mills, Inc., Detroit, Mich.						
2115	Hotelot & Co., Milwaukee, Wis.	Hotelot Malt Brewers Grains.	Guaranteed Found.	25.00 27.13	14.00 16.15	41.10	5.00 5.82
2116	American Milling Co., Peoria, Ill.	AMCO Alfalfa Meal.	Guaranteed Found.	13.00 15.05	30.00 31.50	37.11	2.00 1.81
2117	American Milling Co., Peoria, Ill.	AMCO Process Old Linseed Meal.	Guaranteed Found.	30.00 33.90	10.00 8.05	30.00 38.48	5.00 6.00
2118	American Milling Co., Peoria, Ill.	Surpass Horse & Mule Feed.	Guaranteed Found.	9.00 10.76	12.00 13.34	50.00 60.09	2.50 2.51
2119	Valley City Milling Co., Grand Rapids, Mich.	Farmers Favorite Bran.	Guaranteed Found.	14.65 15.93	10.40 7.96	54.67 57.19	2.81 4.70
2120	Illinois Feed Mills, Branch Ralston Purina Co., St. Louis, Mo.	Feed Well Scratch Feed with grit.	Guaranteed Found.	10.00 12.34	6.00 5.37	60.00 65.24	3.00 3.72
2121	Chas. A. Krause Milling Co., Milwaukee, Wis.	Choice Alfalfa Meal.	Guaranteed Found.	12.00 13.48	35.00 30.75	39.03	1.00 2.04
2122	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Evergreen Feed.	Guaranteed Found.	12.00 12.13	30.00 16.90	39.20	1.00 1.16
2123	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Fancy Middlings.	Guaranteed Found.	12.00 15.84	7.00 3.32	60.23	4.50 6.61
2124	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Fancy Mixed Feed.	Guaranteed Found.	12.50 12.34	9.00 8.15	64.30	4.00 6.28
2125	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Hominy Feed.	Guaranteed Found.	10.00 12.07	6.00 4.25	65.81	5.00 8.07
2126	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Stock Feed.	Guaranteed Found.	10.00 10.94	9.00 9.40	62.24	4.50 6.10
2127	The Albert Dickinson Co., Chicago, Ill.	Pine Tree Scratch Feed.	Guaranteed Found.	10.00 10.50	5.00 2.90	60.00 66.48	2.50 2.79
2128	The Albert Dickinson Co., Chicago, Ill.	Globe Scratch Feed.	Guaranteed Found.	10.00 11.73	5.00 3.45	60.00 67.99	2.50 2.88
2129	The Albert Dickinson Co., Chicago, Ill.	Globe Developing Feed.	Guaranteed Found.	10.00 11.20	5.00 2.50	60.00 71.84	2.50 2.51
2130	The Albert Dickinson Co., Chicago, Ill.	Crescent Chick Feed.	Guaranteed Found.	10.00 10.41	5.00 1.35	60.00 70.68	2.50 3.24

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).—Continued.

Lot No.	Manufacturer and address.	Brand.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract. Per cent.
1834	Edwards & Loomis Co., Chicago, Ill.	Cackie Fine Chick Feed with grit.	9.50 10.85	5.00 2.08	60.00 70.45	2.50 2.87
1835	Edwards & Loomis Co., Chicago, Ill.	Cackie Poultry Feed with grit	9.50 11.20	5.00 3.25	60.00 65.64	2.50 3.57
1836	Edwards & Loomis Co., Chicago, Ill.	Red Comb Pigeon Feed with grit.	10.00 12.42	5.00 3.05	60.00 66.73	2.50 3.50
1837	Edwards & Loomis Co., Chicago, Ill.	Red Comb Meat Mash.	15.00 16.10	8.00 6.55	45.00 59.30	4.00 3.95
1838	Edwards & Loomis Co., Chicago, Ill.	Red Comb Fine Chick Feed with grit.	10.00 10.94	5.00 2.45	60.00 71.18	2.50 3.33
1839	Edwards & Loomis Co., Chicago, Ill.	Red Comb Coarse Chick Feed with grit.	10.00 12.25	5.00 2.35	60.00 67.37	2.50 2.72
1840	Edwards & Loomis Co., Chicago, Ill.	Pound Squab Pigeon Feed.	10.00 11.73	5.00 3.80	60.00 70.08	2.50 4.02
1841	Edwards & Loomis Co., Chicago, Ill.	Red Comb Poultry Feed with grit.	10.00 11.03	5.00 2.70	60.00 70.02	2.50 2.50
1842	Edwards & Loomis Co., Chicago, Ill.	Morning Glory Scratch Feed with grit.	9.50 11.02	5.00 3.35	60.00 70.31	2.50 3.17
1843	Allegan Milling Co., Allegan Mich.	A. M. C. Bran.	14.09 15.84	9.35 7.95	65.31 56.98	3.65 4.06
1844	Amendt Milling Co., Monroe, Mich.	AMCO Poultry Mash.	18.99 20.12	7.80 7.95	61.18 52.72	3.13 5.46
1845	Scotfield & Son, Jackson, Mich.	Scotfield's Dry Mash.	17.41	8.00	53.21	4.83
1846	Millenbach Bros. Co., Detroit, Mich.	Millenbach's Mixed Beef Scraps.	45.00 46.72			10.00 11.66
1847	J. E. Bartlett Co., Jackson, Mich.	National Gluten Feed.	25.00 21.70	10.00 11.15	50.71	6.00 2.29
1848	Golden Grain Milling Co., East St. Louis, Ill.	Golden Grain Horse & Mule Feed.	10.00 11.15	12.00 11.02	55.00 61.38	2.00 2.12

1949	East St. Louis Cotton Oil Co., National Stock Yards, Ill.	Choice Cotton Seed Meal	Guaranteed Found	41.00 43.14	10.00 7.90	26.00 27.76	7.00 9.15
1950	Jos. Schlitz Brewing Co., Milwaukee, Wis.	Schlitz Purity Dried Grains	Guaranteed Found	24.00 27.13	16.00 16.30	40.00 40.37	6.00 5.90
1951	American Hominy Co., Indianapolis, Ind.	Hominy Feed	Guaranteed Found	9.50 10.33	7.00 5.63	58.00 66.26	7.00 6.88
1952	American Hominy Co., Indianapolis, Ind.	Homeline Feed	Guaranteed Found	17.00 17.15	7.00 6.47	52.00 55.01	5.00 5.12
1953	Corn Products Refining Co., New York	Diamond Hog Meal	Guaranteed Found	20.00 21.35	13.00 7.65	50.00 46.28	9.00 17.59
1954	Corn Products Refining Co., New York	Diamond Corn Gluten Meal	Guaranteed Found	40.00 43.75	4.00 1.30	50.00 40.55	1.50 2.15
1955	Corn Products Refining Co., New York	Buffalo Corn Gluten Feed	Guaranteed Found	23.00 23.54	8.50 7.40	50.00 54.45	1.00 2.11
1956	Evans Milling Co., Indianapolis, Ind.	Evans Hominy Feed	Guaranteed Found	10.00	7.00	55.00	7.50
1957	Grand Rapids Brewing Co., Grand Rapids, Mich.	Dried Brewers Grains	Guaranteed Found	25.37	13.50	37.75	7.50
1958	Cudahy Bros. Co., Cudahy, Wis.	Badger Brand Blood Meal	Guaranteed Found	80.00 80.32	1.00	3.00	.05 .88
1959	Cudahy Bros. Co., Cudahy, Wis.	Badger Brand Poultry Bone	Guaranteed Found	25.00 26.16	1.00	3.00	6.00
1960	Cudahy Bros. Co., Cudahy, Wis.	Badger Meat Meal	Guaranteed Found	60.00 63.00	5.00	1.00	8.00 9.71
1961	King Milling Co., Lowell, Mich.	King Corn Meal	Guaranteed Found	9.54 9.97	3.60 2.71	66.99 69.82	7.35 7.26
1962	King Milling Co., Lowell, Mich.	King Corn and Oat Feed	Guaranteed Found	10.06 10.50	5.54 4.65	65.09 68.95	6.63 6.40
1963	Laxo Cake Meal Co., Chicago, Ill.	Old Process "Laxo" Cake Meal	Guaranteed Found	25.00 24.94	12.00 10.26	43.25	6.00 7.40
1964	United States Frumentum Co., Detroit, Mich.	Frumentum Hominy Feed	Guaranteed Found	9.50 11.46	7.00 4.37	63.00 66.56	7.30 9.13
1965	American Malting Co., Detroit, Mich.	Chicken Feed	Guaranteed Found	12.95 11.20	4.90 8.56	63.94 65.02	3.00 2.73
1966	S. P. Davis & Co., Little Rock, Ark.	Good Luck Cotton Seed Meal	Guaranteed Found	41.00 41.13	10.50 6.95	24.00 28.02	7.00 9.45

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).—Continued.

Lot No.	Manufacturer and address.	Brand.	Guaranteed Found.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract. Per cent.
1967	Clover Leaf Milling Co., Buffalo, N. Y.	Clover Leaf Calf Meal	Guaranteed Found	25.00 26.34	7.00 6.13	48.22	7.00 7.13
1968	Henderson Milling Co., Grand Rapids, Mich.	Corn meal	Guaranteed Found	8.75 9.10	1.25 1.37	73.16	4.20 4.01
1969	The Toledo Seed & Oil Co., Toledo, Ohio	Major Brand Old Process Oil Meal	Guaranteed Found	30.00 30.19	10.00 7.75	42.86	6.46
1970	F. W. Brode Co., Memphis, Tenn.	Owl Brand Cotton Seed Meal	Guaranteed Found	41.00 41.74	10.00 5.07	6.50 27.96	10.83
1971	The Metzger Seed & Oil Co., Toledo, Ohio	Old Process Oil Meal	Guaranteed Found	30.00 33.08	10.00 6.71	47.29	5.00 6.12
1972	The Commercial Milling Co., Detroit, Mich.	Henkel's Chop Feed	Guaranteed Found	8.00 8.84	11.50 8.10	66.78	5.00 3.93
1973	The Commercial Milling Co., Detroit, Mich.	Henkel's Coarse Feed Corn Meal	Guaranteed Found	9.01 9.63	.65 .48	74.38 76.32	3.06 3.75
1974	L. Tereles & Co., Milwaukee, Wis.	Badger Brand Chicken Feed	Guaranteed Found	10.00 9.98	5.00 3.79	68.27	2.55 2.53
1975	Everett-Augensbaugh & Co., Waseca, Minn.	E-A-CO Wheat Middlings and ground screenings	Guaranteed Found	15.00	10.00		3.00
1976	Everett-Augensbaugh & Co., Waseca, Minn.	E-A-CO Wheat Bran and ground screenings	Guaranteed Found	15.00	12.00		3.00
1977	Commercial Milling Co., Detroit, Mich.	Standard Wheat Middlings with ground screenings, etc.	Guaranteed Found	16.00 16.54	9.90 6.30	56.84	5.50 5.27
1978	Commercial Milling Co., Detroit, Mich.	Wheat Mixed Feed with ground screenings, etc.	Guaranteed Found	15.00 14.88	11.00 9.80	58.82	4.50 4.45
1979	Sprague-Warner & Co., Chicago, Ill. (Quaker Oats Co., Chicago, Ill., Mfr.)	Chico Brand Chick Feed	Guaranteed Found	10.00	5.00	60.00	2.50
1980	Sprague-Warner & Co., Chicago, Ill. (Quaker Oats Co., Chicago, Ill., Mfr.)	Cero Brand Poultry Feed	Guaranteed Found	10.00 11.29	5.00 2.60	60.00 74.04	2.50 3.52
1981	Buckeye Cotton Oil Co., Cincinnati, Ohio	"Buckeye" Cottonseed Meal	Guaranteed Found	38.62 38.76	12.00 10.54	32.00 29.45	6.50 7.30

1923	John C. Martin & Co., Mineral Point, Wis.	Martin's Calf Feed.	Guaranteed Found	28.00 28.35	6.00 4.55	40.00 46.93	6.00 8.12
1923	J. W. Barwell, Waitegan, Ill.	Blatchford's Pig Meal.	Guaranteed Found	18.00 20.13	7.00 7.45	55.07	5.00 4.85
1924	J. W. Barwell, Waitegan, Ill.	Blatchford's "Mammoth Chick" Milk Mash.	Guaranteed Found	20.00 21.53	7.50 4.73	48.13	4.00 4.41
1925	J. W. Barwell, Waitegan, Ill.	Blatchford's "Fill the Basket" Egg Mash.	Guaranteed Found	19.00 19.43	10.00 3.50	54.13	4.00 4.76
1926	Amendt Milling Co., Monroe, Mich.	AMCO Pigeon Feed.	Guaranteed Found	10.00 12.86	5.00 4.00	58.00 66.20	2.50 4.01
1927	Amendt Milling Co., Monroe, Mich.	AMCO Scratch Grain.	Guaranteed Found	9.54 12.07	4.30 2.80	68.51 66.39	2.40 2.79
1928	Amendt Milling Co., Monroe, Mich.	AMCO Chick Feed.	Guaranteed Found	9.19 11.20	4.00 2.15	69.75 68.65	2.50 3.22
1929	Amendt Milling Co., Monroe, Mich.	AMCO No. 2 Chop Feed.	Guaranteed Found	7.87 12.78	10.95 7.25	64.62 60.78	3.92 6.83
1930	Menominee River Sugar Co., Menominee, Mich.	Sugar Beet Molasses.	Guaranteed Found	9.36		58.56	
1931	Huron Milling Co., Harbor Beach, Mich.	Jenks Mixed Feed.	Guaranteed Found	12.18 14.88	5.55 8.10	59.42	4.60 4.30
1932	Huron Milling Co., Harbor Beach, Mich.	Jenks Gluten Feed.	Guaranteed Found	22.00 22.49	8.00 6.80	57.34	3.00 4.82
1933	Sheffield-King Milling Co., Minneapolis, Minn.	"Whitehope" Middlings.	Guaranteed Found	16.25 16.71	7.29 6.98	58.29	5.05 5.12
1934	Sheffield-King Milling Co., Minneapolis, Minn.	"Fairybow" Middlings.	Guaranteed Found	17.15 17.85	8.99 9.13	56.55	5.01 4.97
1935	Pratt Food Co., Philadelphia, Pa.	Pratt's Baby Chick Food.	Guaranteed Found	11.50 13.04	3.00 2.98	65.00 61.53	2.50 2.30
1936	Midland Linseed Products Co., Minneapolis, Minn.	Midland Brand Pure Old Process Ground Linseed Cake.	Guaranteed Found	32.00 35.26	9.50 6.95	36.00 37.94	5.00 6.90
1937	Valley City Milling Co., Grand Rapids, Mich.	Farmers Favorite Coarse Corn Meal.	Guaranteed Found	8.22 11.55	1.90 2.44	69.87 71.14	3.05 4.84
1938	Valley City Milling Co., Grand Rapids, Mich.	Farmers Favorite Cow Feed.	Guaranteed Found	14.18 15.40	7.50 8.30	58.20 59.25	4.25 4.18
1939	The Ubiko Milling Co., Cincinnati, Ohio.	Union Grains, Ubiko, Biles Ready Dairy Ration.	Guaranteed Found	24.00 23.89	9.00 8.95	50.00 46.99	7.00 6.95

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).—Continued.

License No.	Manufacturer and address.	Brand.	Guaranteed. Found.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract. Per cent.
2000	Kellogg Toasted Corn Flake Co., Battle Creek, Mich.	Corn Flake Feed	Guaranteed. Found.	6.91 8.75	.42 .10	78.62 76.91	2.15 1.69
2001	Kellogg Toasted Corn Flake Co., Battle Creek, Mich.	Dried Brewers Grains	Guaranteed. Found.	25.11 25.03	12.75 13.17	47.07 45.98	5.07 4.95
2002	Kellogg Toasted Corn Flake Co., Battle Creek, Mich.	Broken Wheat Biscuit Feed	Guaranteed. Found.	10.15 13.04	2.40 2.17	76.43 74.69	1.07 1.14
2003	Star of the West Milling Co., Frankenthum, Mich.	"Special Feed"	Guaranteed. Found.	8.57	8.97	67.27	3.65
2004	National Food Co., Fond du Lac, Wis.	No-Milk Calf Food	Guaranteed. Found.	17.25	6.00		
2005	A. L. Hibbard, Sturgis, Mich.	No. 1 Chop.	Guaranteed. Found.	8.84 8.84	4.75 4.35	71.05 69.41	4.30 4.40
2006	Douglas & Co., Cedar Rapids, Iowa.	Douglas Corn Gluten Feed	Guaranteed. Found.	23.00 22.93	8.00 6.02	52.00 55.35	2.00 2.55
2007	The Memphis Cotton Hull & Fibre Co., Memphis, Tenn.	"Cyclone Feed Meal"	Guaranteed. Found.	20.00 21.44	23.00 8.85	38.00 53.63	3.00 4.29
2008	Northrup King & Co., Minneapolis, Minn.	Sterling Hen Feed	Guaranteed. Found.	11.67	4.61	65.06	3.42
2009	Northrup King & Co., Minneapolis, Minn.	Sterling Chick Feed	Guaranteed. Found.	12.25	4.51	61.87	2.70
2010	Northrup King & Co., Minneapolis, Minn.	Sterling Baby Chick Starter	Guaranteed. Found.	12.25	4.51	61.87	2.70
2011	Postum Cereal Co. Ltd., Battle Creek, Mich.	Pearl Meal	Guaranteed. Found.	7.00 7.44	1.00 .60	75.00 78.08	.50 1.81
2012	Postum Cereal Co. Ltd., Battle Creek, Mich.	C X X Feed	Guaranteed. Found.	15.00 20.04	24.00 14.22	42.00 55.46	2.00 3.00
2013	Postum Cereal Co. Ltd., Battle Creek, Mich.	G. N. Feed	Guaranteed. Found.	9.00 11.73	2.50 1.25	63.00 77.83	1.00 1.54
2014	Postum Cereal Co. Ltd., Battle Creek, Mich.	Special Feed	Guaranteed. Found.	9.00 10.06	.75 .62	75.00 78.64	.50 .60

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2015	Postum Cereal Co. Ltd., Battle Creek, Mich.	Barley Bran.....	Guaranteed Found.....	6.00 12.25	32.00 13.90	45.00 61.60	1.25 2.60
2016	Postum Cereal Co. Ltd., Battle Creek, Mich.	Chicken Feed.....	Guaranteed Found.....	8.00 11.29	15.00 3.78	55.00 70.38	1.00 1.70
2017	Postum Cereal Co. Ltd., Battle Creek, Mich.	Flaked Corn Feed.....	Guaranteed Found.....	8.00 8.23	5.00 1.20	70.00 80.62	1.00 2.70
2018	Postum Cereal Co. Ltd., Battle Creek, Mich.	Cereal Feed.....	Guaranteed Found.....	11.00 12.95	18.00 14.33	82.00 96.32	1.75 2.60
2019	The Quaker Oats Co., Chicago, Ill.	Mas-All Corn Feed.....	Guaranteed Found.....	8.00 8.23	2.00 1.92	80.00 90.45	1.40 1.45
2020	The Quaker Oats Co., Chicago, Ill.	Old Tavern Chick Feed.....	Guaranteed Found.....	10.00 10.07	5.00 2.25	60.00 68.44	2.60 2.72
2021	The Quaker Oats Co., Chicago, Ill.	Old Tavern Scratch Feed.....	Guaranteed Found.....	10.00 10.24	5.00 2.16	60.00 63.47	2.60 3.01
2022	The Quaker Oats Co., Chicago, Ill.	Schumacher Little Chick Feed.....	Guaranteed Found.....	10.00 10.85	5.00 2.40	60.00 71.13	2.60 3.57
2023	The Quaker Oats Co., Chicago, Ill.	Schumacher Scratch Grains.....	Guaranteed Found.....	10.00 11.81	5.00 2.65	60.00 71.36	2.60 3.43
2024	The Quaker Oats Co., Chicago, Ill.	Quaker Scratch Grains.....	Guaranteed Found.....	10.00	5.00	60.00	2.50
2025	The Quaker Oats Co., Chicago, Ill.	Schumacher Calf Meal.....	Guaranteed Found.....	19.00 19.34	3.00 1.95	54.00 61.46	8.00 6.55
2026	The Quaker Oats Co., Chicago, Ill.	Schumacher Stock Feed.....	Guaranteed Found.....	10.00 11.55	10.00 9.25	62.00 61.57	3.25 4.73
2027	The Quaker Oats Co., Chicago, Ill.	Victor Feed.....	Guaranteed Found.....	8.00 8.31	12.00 10.10	62.00 64.26	3.00 5.58
2028	The Quaker Oats Co., Chicago, Ill.	Quaker Chick Feed.....	Guaranteed Found.....	10.00	5.00	60.00	2.50
2029	The Quaker Oats Co., Chicago, Ill.	American Hen Scratch Grains.....	Guaranteed Found.....	10.00 12.07	5.00 2.10	60.00 65.56	2.50 3.10
2030	Cancelled.....	.....	Guaranteed Found.....	.....	.....	.....	.....
2031	Cheboygan Flour Mill Co., Cheboygan, Mich.	Corn Germ Meal.....	Guaranteed Found.....	10.59 12.95	2.30 1.15	64.26 68.13	5.55 5.20
2032	Cheboygan Flour Mill Co., Cheboygan, Mich.	Highland Scratch Feed.....	Guaranteed Found.....	11.99 12.16	3.25 3.67	67.41 68.44	3.75 3.15

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915.)—Continued.

Line No.	Manufacturer and address.	Brand.	Guaranteed Found.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract Per cent.
2033	The West Branch Flour Mfg. Co., West Branch, Mich.	Street Car Feed.	Guaranteed. Found.	11.99 12.25	2.40 3.63	66.08 67.09	4.03 3.78
2034	J. E. Bartlett Co., Jackson, Mich.	Bartlett's Malt Sugar Grains.	Guaranteed. Found.	20.00 20.56	15.00 19.66	44.40	6.00 5.92
2035	J. E. Bartlett Co., Jackson, Mich.	Michigan "Farmer" Brand Cotton Seed Meal.	Guaranteed. Found.	41.00 42.00	10.00 12.65	20.00 23.19	7.00 8.66
2036	McLaughlin Ward & Co., Jackson, Mich.	Crown Scratch Feed.	Guaranteed. Found.	10.00 10.06	3.00 2.70	66.00 66.80	5.00 2.86
2037	Clinton Sugar Refining Co., Clinton, Iowa.	Clinton Corn Gluten Feed.	Guaranteed. Found.	23.00 24.59	8.00 6.47	55.00 56.31	3.00 3.04
2038	Wm. Fluemer, Mt. Clemens, Mich.	Fluemer's Chicken Feed.	Guaranteed. Found.	10.50 10.76	4.55 2.10	12.30 73.94	3.15 3.10
2039	American Linseed Co., N. Y. & Chicago.	Old Process Linseed Oil Meal.	Guaranteed. Found.	34.00 34.04	9.00 7.07	42.00 35.23	6.00 8.12
2040	Grand Rapids Grain & Milling Co., Grand Rapids, Mich.	Purity Scratch Feed.	Guaranteed. Found.	9.36 12.77	4.62 4.27	67.00 67.24	3.62 4.17
2041	Chapin & Co., Hammond, Ind.	Union Dairy Ration.	Guaranteed. Found.	26.00 28.00	10.00 10.75	50.00 43.61	5.50 6.54
2042	Chapin & Co., Hammond, Ind.	Ajax Flakes.	Guaranteed. Found.	30.00 30.01	14.00 10.64	30.00 38.02	11.00 11.50
2043	Hanley Milling Co., Inc., Potosky, Mich.	Bran with Mill Run of screenings.	Guaranteed. Found.	13.56	9.57	57.68	3.75
2044	Hanley Milling Co., Inc., Potosky, Mich.	Feed Meal.	Guaranteed. Found.	9.71	3.37	70.24	5.32
2045	American Milling Co., Peoria, Ill.	Sureness Dairy Feed.	Guaranteed. Found.	16.50 18.90	13.00 11.25	46.00 50.43	2.50 5.07
2046	American Milling Co., Peoria, Ill.	Sureness Scratch Feed.	Guaranteed. Found.	10.00 10.33	5.00 2.40	65.00 74.43	2.50 2.95
2047	American Milling Co., Peoria, Ill.	Sureness Scratch Feed with 5 per cent grit.	Guaranteed. Found.	10.00 10.06	5.00 2.68	65.00 70.19	2.50 2.97

2048	American Milling Co., Peoria, Ill.	Chuck Chuck Scratch Feed	Guaranteed Found	10.00 10.59	5.00 2.75	65.00 69.84	2.50 2.08
2049	American Milling Co., Peoria, Ill.	Chuck Chuck Scratch Feed with 5 per cent grit	Guaranteed Found	10.00 11.81	5.00 2.90	65.00 65.92	2.50 2.57
2050	American Milling Co., Peoria, Ill.	Tip Top Scratch Feed	Guaranteed Found	10.00 11.37	4.50 3.10	70.00 69.70	2.50 2.08
2051	American Milling Co., Peoria, Ill.	Tip Top Scratch Feed with 5 per cent grit	Guaranteed Found	10.00 10.59	4.50 3.80	70.00 71.48	2.50 2.47
2052	American Milling Co., Peoria, Ill.	Tip Top Chick Feed	Guaranteed Found	10.00 10.59	5.00 2.58	65.00 70.10	2.50 2.88
2053	American Milling Co., Peoria, Ill.	Tip Top Chick Feed with 5 per cent grit	Guaranteed Found	10.00 10.24	5.00 3.60	65.00 59.25	2.50 2.98
2054	American Milling Co., Peoria, Ill.	Sureness Chick Feed	Guaranteed Found	10.00 10.24	5.00 3.55	65.00 74.94	2.50 3.07
2055	American Milling Co., Peoria, Ill.	Sureness Chick Feed with 5 per cent grit	Guaranteed Found	10.00 9.98	5.00 2.70	65.00 59.77	2.50 2.92
2056	The Larowe Milling Co., Detroit, Mich.	Larow-Feed	Guaranteed Found	19.00 19.98	14.00 12.13	50.00 51.12	3.00 3.75
2057	M. C. Peters Mill Co., Omaha, Neb.	Peters' June Pasture Dairy Meal	Guaranteed Found	10.00 12.09	26.00 21.02	44.00 46.84	.50 .98
2058	Rosch & Seiber Co., Houghton, Mich.	Rosoco Brand Scratch Feed	Guaranteed Found	10.00 10.15	5.00 1.25	66.11	2.50 3.25
2059	Bad Axe Grain Co., Bad Axe, Mich.	Egg Brand Poultry Feed	Guaranteed Found	10.94 11.29	2.86 2.60	70.73 72.28	3.04 3.33
2060	Bad Axe Grain Co., Bad Axe, Mich.	Axe Brand Ground Feed	Guaranteed Found	12.42 12.43	7.13 6.60	63.63 67.08	3.14 3.08
2061	Spratt's Patent (America) Limited, Newark, N. J.	Spratt's Poultry Food No. 3	Guaranteed Found	20.00 21.61	2.00 .35	60.00 64.40	2.50 2.46
2062	Spratt's Patent (America) Limited, Newark, N. J.	Ground Meat	Guaranteed Found	43.00 61.34	2.00	.70	10.00 10.02
2063	Darrah Milling Co., Big Rapids, Mich.	Unbolted Corn Meal	Guaranteed Found	11.38 10.59	4.10 1.80	63.37 71.06	4.65 4.06
2064	Humphreys-Godwin Co., Memphis, Tenn.	Dixie Brand Cottonseed Meal	Guaranteed Found	38.62 40.86	12.00 10.83	94.00 28.14	6.00 7.35
2065	Joe. Wellman's Sons, Port Huron, Mich.	Mixed Chicken Feed	Guaranteed Found	9.01	3.30	70.88	3.40

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).—Continued.

License No.	Manufacturer and address.	Brand.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract. Per cent.
2066	Portland Milling Co., Portland, Mich.	Champion Mixed Feed with ground screenings not exceeding mill run.	Guaranteed. Found. 13.56 14.32	8.47 7.78	59.54 59.71	3.58 3.72
2067	Portland Milling Co., Portland, Mich.	Puritas Corn & Oat Feed.	Guaranteed. Found. 10.41 10.67	6.38 6.06	68.43 67.96	4.23 4.00
2068	Thunder Bay Milling Co., Alpena, Mich.	Bradford's Coarse Corn Meal.	Guaranteed. Found. 7.87	1.85	75.70	2.70
2069	C. C. Wright, Orosco, Mich.	Occident Chick Feed.	Guaranteed. Found. 10.15 10.24	2.90 3.10	69.87 69.60	2.95 2.75
2070	C. C. Wright, Orosco, Mich.	Wright's Mixture (Scratch Feed).	Guaranteed. Found. 10.41	2.75	70.24	2.75
2071	American Linseed Co., Chicago, Ill.	Cleveland Linseed Oil Meal.	Guaranteed. Found. 36.00 36.05	9.00 8.43	42.00 40.09	2.00 2.72
2072	Dewey Bros. Co., Blanchester, Ohio.	Eagle Three D Grains.	Guaranteed. Found. 30.00 30.28	13.00 12.85	30.00 36.57	10.00 14.60
2073	Hirst & Begley Linseed Co., Chicago, Ill.	H & B Ground Linseed Cake.	Guaranteed. Found. 34.00 34.83	9.00 7.45	42.00 35.77	8.00 10.20
2074	W. C. Nothorn, Little Rock, Ark.	Bee Brand Cotton Seed Meal.	Guaranteed. Found. 41.00 44.40	10.00 9.00	26.22	6.50 7.63
2075	Van Eyck Weurding Milling Co., Holland, Mich.	Poultry Feed.	Guaranteed. Found. 10.41 10.24	2.15 2.85	62.29 68.12	2.80 3.64
2076	Purina Mills, Branch Ralston Purina Co., St. Louis, Mo.	Purina Dairy Feed.	Guaranteed. Found. 19.00 20.74	15.00 16.95	45.00 44.46	3.50 3.40
2077	Purina Mills, Branch Ralston Purina Co., St. Louis, Mo.	Purina Feed with Molasses.	Guaranteed. Found. 9.30 9.58	11.70 12.00	59.20 59.33	1.70 2.76
2078	F. Becker, Grand Rapids, Mich.	Feed Corn Meal.	Guaranteed. Found. 7.79 8.84	1.55 1.40	67.41 77.09	3.75 3.25
2079	Purina Mills, Branch Ralston Purina Co., St. Louis, Mo.	Purina Chick Feed.	Guaranteed. Found. 11.00 12.15	4.00 1.53	65.00 72.89	3.00 3.18
2080	Purina Mills, Branch Ralston Purina Co., St. Louis, Mo.	Purina Scratch Feed.	Guaranteed. Found. 11.00 11.99	4.00 2.55	65.00 71.15	3.00 2.97

2081	Purina Mills, Branch Ralston Purina Co., St. Louis, Mo.	Purina Chicken Chowder with Charcoal.	Guaranteed Found	17.00 18.90	9.00 8.10	56.00 54.12	3.00 4.03
2082	Darling & Co., Chicago, Ill.	Darling's High Protein Meat Scraps	Guaranteed Found	55.00 57.05	3.00		.50 8.29
2083	Darling & Co., Chicago, Ill.	Darling's Standard Meat Scraps	Guaranteed Found	45.00 49.61	3.00		.50 5.76
2084	Darling & Co., Chicago, Ill.	Darling's Meat Crisps	Guaranteed Found	75.00 79.80	3.00		.50 6.45
2085	Darling & Co., Chicago, Ill.	Darling's Granulated Bone	Guaranteed Found	20.00 26.25	3.00		.50 4.59
2086	Darling & Co., Chicago, Ill.	Darling's 60 per cent Protein Digester Tankage	Guaranteed Found	60.00 60.64	3.00		.50 2.40
2087	Armour Fertilizer Works, Chicago, Ill.	Armours Granulated Bone	Guaranteed Found	23.00 23.46			2.00
2088	Armour Fertilizer Works, Chicago, Ill.	Meat Meal	Guaranteed Found	60.00 67.38	2.00		10.00
2089	Armour Fertilizer Works, Chicago, Ill.	Blood Meal	Guaranteed Found	80.00 81.38	2.00		
2090	Amendt Milling Co., Monroe, Mich.	AMCO Alfalfa Meal	Guaranteed Found	12.00 13.83	35.00 29.05	38.30	.50 1.57
2091	Dwight M. Baldwin, Jr., Minneapolis, Minn. (Baldwin Flour Mills)	Baldwin Flour Mills Wheat Bran with not exceeding mill run of ground screenings	Guaranteed Found	14.50 14.96	12.00 10.42	53.91	4.00 5.00
2092	Dwight M. Baldwin, Jr., Minneapolis, Minn. (Baldwin Flour Mills)	Baldwin Flour Mills Wheat Shorts with not exceeding mill run of ground screenings	Guaranteed Found	15.00 16.71	11.00 6.15		5.00 6.00
2093	Dwight M. Baldwin, Jr., Minneapolis, Minn. (Baldwin Flour Mills)	Baldwin Flour Mills Wheat Flour Middlings with not exceeding mill run of ground screenings	Guaranteed Found	16.50 16.71	7.00 5.07	59.53	5.00 5.36
2094	Continental Cereal Co., Peoria, Ill.	Continental Gluten Feed	Guaranteed Found	29.00 28.89	10.50 7.05	40.00 47.59	10.50 7.53
2095	Michigan Cereal Co., Port Huron, Mich.	Pea Bran	Guaranteed Found	20.91	20.55	45.12	2.02
2096	J. E. Bartlett Co., Jackson, Mich.	Creamo Brand Cotton Seed Feed Meal	Guaranteed Found	20.00 20.30	25.00 36.60	25.28	4.00 4.45
2097	Model Milling Co., Port Huron, Mich.	Model Scratch Feed	Guaranteed Found	10.50 10.41	2.30 1.70	71.10 74.34	3.45 3.45
2098	Model Milling Co., Port Huron, Mich.	Model Egg Mash	Guaranteed Found	13.21 18.29	5.25 5.14	63.34 59.99	4.70 4.34

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).—Continued.

License No.	Manufacturer and address.	Brand.	Guaranteed Found.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen—Free extract. Per cent.	Ether extract. Per cent.
2009	B. B. Hyde, Port Huron, Mich.	Ideal Poultry Feed	Guaranteed Found.	10.15 10.06	2.25 2.40	71.33 73.98	3.57 3.53
2100	Cancelled		Guaranteed Found.				
2101	J. E. Bartlett Co., Jackson, Mich.	Michigan Farmer Brand of Tankage.	Guaranteed Found.	33.44			13.54
2102	Frank J. Stuart, Pontiac, Mich.	Stuart's Chicken Feed	Guaranteed Found.	8.66 9.71	3.32 1.96		2.85 2.89
2103	C. E. DePuy Co., Pontiac, Mich.	Pearless Scratch Feed	Guaranteed Found.	9.89 11.20	2.12 2.85	69.90 70.47	2.82 2.86
2104	C. E. DePuy Co., Pontiac, Mich.	Victor Chick Feed	Guaranteed Found.	9.71 11.20	2.69 2.35	74.12 67.02	2.40 2.85
2105	McMoran Milling Co., Port Huron, Mich.	Protean Dairy Feed	Guaranteed Found.	18.99 24.49	3.70 9.15	82.78 49.55	3.00 3.11
2106	W. J. Byrnes & Co., Chicago, Ill.	Daisy Chick Feed	Guaranteed Found.	10.00 12.25	5.00 2.40		2.50 2.99
2107	W. J. Byrnes & Co., Chicago, Ill.	Royal Poultry Feed	Guaranteed Found.	10.00	5.00	70.61	3.00
2108	Lichtenberg & Son, Detroit, Mich.	Faranel Horse Feed	Guaranteed Found.	13.95 11.28	7.09 7.15	58.93 64.52	3.45 3.75
2109	Lichtenberg & Son, Detroit, Mich.	Faranel Summer Horse Feed	Guaranteed Found.	14.00 10.40	7.46 6.97	57.41 63.39	3.82 3.58
2110	Lichtenberg & Son, Detroit, Mich.	Faranel Dairy Feed	Guaranteed Found.	19.35 22.49	8.38 8.90	49.10 64.53	2.43 4.50
2111	Lichtenberg & Son, Detroit, Mich.	Lichtenberg's Chop Feed	Guaranteed Found.	11.11 10.77	3.65 3.96	66.51 72.50	3.28 4.43
2112	J. J. Badenoch Co., Chicago, Ill.	C-e-l-a-y	Guaranteed Found.	9.50 10.41	5.00 3.72	66.50 63.79	2.90 2.83
2113	Edwards & Loomis Co., Chicago, Ill.	Red Comb Alfalfa Meal	Guaranteed Found.	13.80 17.24	30.00 29.25		1.00 2.14

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2114	David Stott Flour Mills, Inc., Detroit, Mich.	Winner Chop Feed.	Guaranteed Found.	9.00 10.76	10.00 7.62	70.00 63.74	5.00 6.03
2115	Hottel & Co., Milwaukee, Wis.	Holstein Malt Brewed Grains.	Guaranteed Found.	25.00 27.13	14.00 16.15	41.10	5.00 5.83
2116	American Milling Co., Peoria, Ill.	AMCO Alfalfa Meal.	Guaranteed Found.	12.00 15.06	30.00 31.50	37.11	2.00 1.81
2117	American Milling Co., Peoria, Ill.	AMCO Process Old Linseed Meal.	Guaranteed Found.	20.00 32.90	10.00 8.06	30.00 38.48	5.00 6.00
2118	American Milling Co., Peoria, Ill.	Success Horse & Mule Feed.	Guaranteed Found.	9.00 10.76	12.00 13.34	50.00 60.00	2.50 2.51
2119	Valley City Milling Co., Grand Rapids, Mich.	Farmers Favorite Bran.	Guaranteed Found.	14.65 15.93	10.40 7.96	54.67 57.19	2.81 4.70
2120	Illinois Feed Mills, Branch Ralston Purina Co., St. Louis, Mo.	Feed Well Scratch Feed with grit.	Guaranteed Found.	10.00 12.34	6.00 3.27	60.00 65.24	3.00 3.72
2121	Chas. A. Krause Milling Co., Milwaukee, Wis.	Choice Alfalfa Meal.	Guaranteed Found.	12.00 13.46	35.00 30.75	39.03	1.00 2.04
2122	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Evergreen Feed.	Guaranteed Found.	12.00 12.13	30.00 16.90	39.20	1.00 1.16
2123	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Fancy Middlings.	Guaranteed Found.	12.00 16.84	7.00 3.32	60.23	4.50 6.61
2124	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Fancy Mixed Feed.	Guaranteed Found.	12.50 12.34	9.00 8.15	64.30	4.00 6.28
2125	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Hominy Feed.	Guaranteed Found.	10.00 12.07	6.00 4.25	65.81	5.00 8.07
2126	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Stock Feed.	Guaranteed Found.	10.00 10.94	9.00 9.40	62.24	4.50 6.10
2127	The Albert Dickinson Co., Chicago, Ill.	Pine Tree Scratch Feed.	Guaranteed Found.	10.00 10.50	5.00 2.90	60.00 66.48	2.50 2.79
2128	The Albert Dickinson Co., Chicago, Ill.	Globe Scratch Feed.	Guaranteed Found.	10.00 11.73	5.00 3.46	60.00 67.99	2.50 2.88
2129	The Albert Dickinson Co., Chicago, Ill.	Globe Developing Feed.	Guaranteed Found.	10.00 11.20	5.00 2.80	60.00 71.84	2.50 2.51
2130	The Albert Dickinson Co., Chicago, Ill.	Crescent Chick Feed.	Guaranteed Found.	10.00 10.41	5.00 1.35	60.00 70.53	2.50 3.34

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).—Continued.

License No.	Manufacturer and address.	Brand.	Guaranteed Found.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen—Free extract. Per cent.	Ether extract. Per cent.
2131	The Albert Dickinson Co., Chicago, Ill.	Globe Egg Mash.	Guaranteed Found.	16.00 15.84	10.00 4.90	50.00 62.06	3.00 3.80
2132	The Albert Dickinson Co., Chicago, Ill.	White Cross Scratch Feed.	Guaranteed Found.	10.00 11.72	5.00 2.25	60.00 72.63	2.80 3.00
2133	The Albert Dickinson Co., Chicago, Ill.	White Cross Chick Feed.	Guaranteed Found.	10.00 10.06	5.00 1.45	60.00 70.85	2.50 2.99
2134	The Albert Dickinson Co., Chicago, Ill.	White Cross Stock Feed.	Guaranteed Found.	10.00 11.03	10.00 3.26	60.00 72.14	3.50 4.00
2135	The Albert Dickinson Co., Chicago, Ill.	Globe Chick Feed.	Guaranteed Found.	10.00 10.32	5.00 1.70	60.00 69.58	2.80 2.25
2136	The Albert Dickinson Co., Chicago, Ill.	White Cross Horse Feed.	Guaranteed Found.	10.00	8.00	60.00	2.50
2137	The Albert Dickinson Co., Chicago, Ill.	Alfalfa Meal.	Guaranteed Found.	12.00	35.00	35.00	1.00
2138	The Albert Dickinson Co., Chicago, Ill.	Queen Poultry Mash.	Guaranteed Found.	11.00 11.64	10.00 7.60	60.00 64.76	2.50 5.25
2139	The Albert Dickinson Co., Chicago, Ill.	King Pigeon Feed.	Guaranteed Found.	10.00 11.11	5.00 2.65	60.00 72.89	2.50 4.10
2140	Hubbard Milling Co., Mankato, Minn.	Flaky Bran.	Guaranteed Found.	15.00 15.40	11.50 11.15	53.95	4.50
2141	Wilbur Stock Food Co., Milwaukee, Wis.	Wilbur Poultry Tonic.	Guaranteed Found.	17.00 16.63	6.00 6.53	52.23	3.00 4.73
2142	New Prague Flouring Mill Co., New Prague, Minn.	"Seal of Minnesota" Bran.	Guaranteed Found.	14.60 16.45	11.00 7.05	44.00 58.38	4.75 4.45
2143	Purina Mills, Branch Ralston Purina Co., St. Louis, Mo.	Purina Sweet Feed.	Guaranteed Found.	10.30 14.13	18.00 17.36	48.00 50.70	1.20 2.22
2144	J. J. Badenoch Co., Chicago, Ill.	Cee-lay Fine Chick Feed.	Guaranteed Found.	10.00 10.41	3.20 2.91	67.70 69.50	2.50 3.18
2145	McMerran Milling Co., Port Huron, Mich.	Great Brand Poultry Feed.	Guaranteed Found.	10.32 11.20	3.30 3.60	67.08 69.97	2.65 3.08

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2146	John B. A. Kern & Sons, Milwaukee, Wis.	Eagle Bran with screenings not exceeding mill run.	Guaranteed Found	15.00 15.75	10.00 10.75	50.00 54.83	3.25 3.91
2147	John B. A. Kern & Sons, Milwaukee, Wis.	Eagle Standard Middlings with screenings not exceeding mill run.	Guaranteed Found	16.00 17.06	7.80 7.90	50.00 56.07	5.15 5.02
2148	C. W. Cheney Co., Eau Claire, Wis.	Chicken Feed.	Guaranteed Found	12.06	2.12	66.79	3.16
2149	McMerran Milling Co., Port Huron, Mich.	Crest Brand Chop Feed.	Guaranteed Found	8.66 9.98	16.70 8.30	60.01 67.68	2.71 3.74
2150	M. G. Rankin & Co., Milwaukee, Wis.	Bran with ground screenings not exceeding mill run.	Guaranteed Found	14.50 16.45	9.50 9.48	52.00 55.67	4.00 4.40
2151	Bernhard Stern & Sons, Inc., Milwaukee, Wis.	Atlas Wheat Flour Middlings with ground screenings not exceeding mill run.	Guaranteed Found	16.00 17.41	8.00 6.73	58.57	4.50 5.25
2152	Bernhard Stern & Sons, Inc., Milwaukee, Wis.	Atlas Wheat Bran with ground screenings not exceeding mill run.	Guaranteed Found	15.00 17.50	12.00 7.83	58.54	3.50 4.25
2153	Cronenwett & Sons, Detroit, Mich.	Manhattan Stock Food.	Guaranteed Found	10.68 11.11	2.83 2.40	64.36 70.39	4.30 3.70
2154	Cronenwett & Sons, Detroit, Mich.	Manhattan Poultry Food.	Guaranteed Found	5.29 12.07	5.39 5.65	70.62 63.38	4.05 3.95
2155	Minnesota Linsed Oil Co., Minneapolis, Minn.	Ground Oil Cake.	Guaranteed Found	34.00 36.75	11.00 6.35	37.86	5.00 6.30
2156	Peninsular Milling Co., Flint, Mich.	Wheat Bran with ground screenings.	Guaranteed Found	15.00 14.88	10.00 11.05	50.00 55.76	3.50 3.51
2157	Chicago Heights Oil Mfg. Co., Chicago, Ill.	"Heights" Corn Oil Cake Meal.	Guaranteed Found	16.00 19.49	6.00 2.08	56.66	5.00 7.37
2158	Chicago Heights Oil Mfg. Co., Chicago, Ill.	Prize Cooked Hog Feed.	Guaranteed Found	15.00 19.25	15.00 8.20	51.06	7.00 8.35
2159	J. J. Badenoch Co., Chicago, Ill.	Sunflower Poultry Feed.	Guaranteed Found	10.00 11.02	5.00 2.75	57.20 73.78	2.50 3.25
2160	J. J. Badenoch Co., Chicago, Ill.	Sunflower Fine Chick Feed.	Guaranteed Found	10.00	5.00	57.20	2.50
2161	J. J. Badenoch Co., Chicago, Ill.	Sunflower Pigeon Feed.	Guaranteed Found	10.00 14.79	5.00 2.67	65.00 67.43	2.50 4.53
2162	J. J. Badenoch Co., Chicago, Ill.	Sunflower Developing Feed.	Guaranteed Found	10.00 10.08	5.00 2.40	57.20 70.90	2.50 2.80
2163	J. J. Badenoch Co., Chicago, Ill.	Eggsday Meat Cereal Mash.	Guaranteed Found	15.00 17.59	8.00 6.45	54.00 60.71	4.00 5.10

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).—Continued.

Lot No.	Manufacturer and address.	Brand.		Protein. Per cent.	Crude fibre. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract. Per cent.
2000	Kellogg Toasted Corn Flake Co., Battle Creek, Mich.	Corn Flake Feed.	Guaranteed Found.	6.91 8.75	.42 .10	78.62 76.91	2.15 1.69
2001	Kellogg Toasted Corn Flake Co., Battle Creek, Mich.	Dried Brewers Grains.	Guaranteed Found.	25.11 25.03	12.75 13.17	47.07 45.98	5.07 4.95
2002	Kellogg Toasted Corn Flake Co., Battle Creek, Mich.	Broken Wheat Biscuit Feed.	Guaranteed Found.	10.15 13.04	2.60 2.17	76.43 74.69	1.07 1.14
2003	Star of the West Milling Co., Frankenthuth, Mich.	"Special Feed"	Guaranteed Found.	8.57	8.97	67.27	3.65
2004	National Food Co., Fond du Lac, Wis.	No-Milk Calf Food.	Guaranteed Found.	17.25	6.00		
2005	A. L. Hibbard, Sturgis, Mich.	No. 1 Chop.	Guaranteed Found.	8.84 8.84	4.75 4.35	71.05 69.41	4.30 4.40
2006	Douglas & Co., Cedar Rapids, Iowa.	Douglas Corn Gluten Feed.	Guaranteed Found.	23.00 22.95	8.00 6.02	52.00 55.35	2.00 2.55
2007	The Memphis Cotton Hull & Fibre Co., Memphis, Tenn.	"Cyclone Feed Meal"	Guaranteed Found.	20.00 21.44	23.00 8.85	38.00 53.63	3.00 4.29
2008	Northrup King & Co., Minneapolis, Minn.	Sterling Hen Feed.	Guaranteed Found.	11.67	4.61	65.06	3.42
2009	Northrup King & Co., Minneapolis, Minn.	Sterling Chick Feed.	Guaranteed Found.	12.25	4.51	61.87	2.70
2010	Northrup King & Co., Minneapolis, Minn.	Sterling Baby Chick Starter.	Guaranteed Found.	12.25	4.51	61.87	2.70
2011	Postum Cereal Co. Ltd., Battle Creek, Mich.	Pearl Meal.	Guaranteed Found.	7.00 7.44	1.00 .60	75.00 78.68	.50 1.81
2012	Postum Cereal Co. Ltd., Battle Creek, Mich.	C X X Feed.	Guaranteed Found.	15.00 20.04	24.00 14.22	42.00 55.46	2.00 3.00
2013	Postum Cereal Co. Ltd., Battle Creek, Mich.	G. N. Feed.	Guaranteed Found.	9.00 11.73	2.80 1.25	63.00 77.83	1.00 1.54
2014	Postum Cereal Co. Ltd., Battle Creek, Mich.	Special Feed.	Guaranteed Found.	9.00 10.06	.75 .62	75.00 78.64	.50 .60

2015	Postum Cereal Co., Ltd., Battle Creek, Mich.	Barley Bran.	Guaranteed Found	6.00 12.25	32.00 13.90	45.00 61.60	1.25 2.60
2016	Postum Cereal Co. Ltd., Battle Creek, Mich.	Chicken Feed	Guaranteed Found	8.00 11.29	16.00 3.78	55.00 70.38	1.00 1.70
2017	Postum Cereal Co., Ltd., Battle Creek, Mich.	Flaked Corn Feed	Guaranteed Found	8.00 8.23	5.00 1.20	70.00 80.62	1.00 2.70
2018	Postum Cereal Co., Ltd., Battle Creek, Mich.	Cereal Feed	Guaranteed Found	11.00 12.95	18.00 14.33	62.00 59.52	1.75 2.50
2019	The Quaker Oats Co., Chicago, Ill.	Mas-All Corn Feed	Guaranteed Found	8.00 8.23	2.00 1.92	80.00 80.45	1.40 1.45
2020	The Quaker Oats Co., Chicago, Ill.	Old Tavern Chick Feed	Guaranteed Found	10.00 10.07	5.00 2.25	60.00 63.44	2.50 2.72
2021	The Quaker Oats Co., Chicago, Ill.	Old Tavern Scratch Feed	Guaranteed Found	10.00 10.24	5.00 2.16	60.00 63.47	2.50 3.01
2022	The Quaker Oats Co., Chicago, Ill.	Schumacher Little Chick Feed	Guaranteed Found	10.00 10.85	5.00 2.40	60.00 71.13	2.50 3.57
2023	The Quaker Oats Co., Chicago, Ill.	Schumacher Scratch Grains	Guaranteed Found	10.00 11.81	5.00 2.65	60.00 71.36	2.50 3.43
2024	The Quaker Oats Co., Chicago, Ill.	Quaker Scratch Grains	Guaranteed Found	10.00	5.00	60.00	2.50
2025	The Quaker Oats Co., Chicago, Ill.	Schumacher Calf Meal	Guaranteed Found	19.00 19.34	3.00 1.56	54.00 61.46	8.00 6.85
2026	The Quaker Oats Co., Chicago, Ill.	Schumacher Stock Feed	Guaranteed Found	10.00 11.55	10.00 9.25	62.00 61.57	3.25 4.73
2027	The Quaker Oats Co., Chicago, Ill.	Victor Feed	Guaranteed Found	8.00 8.31	12.00 10.10	62.00 64.26	3.00 5.58
2028	The Quaker Oats Co., Chicago, Ill.	Quaker Chick Feed	Guaranteed Found	10.00	5.00	60.00	2.50
2029	The Quaker Oats Co., Chicago, Ill.	American Hen Scratch Grains	Guaranteed Found	10.00 12.07	5.00 2.10	60.00 65.56	2.50 3.10
2030	Cancelled		Guaranteed Found				
2031	Cheboygan Flour Mill Co., Cheboygan, Mich.	Corn Germ Meal	Guaranteed Found	10.59 12.95	2.30 1.15	64.26 68.13	5.85 5.20
2032	Cheboygan Flour Mill Co., Cheboygan, Mich.	Highland Scratch Feed	Guaranteed Found	11.99 12.16	3.25 3.67	67.41 68.44	3.75 3.18

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1916.)—Continued.

Line No.	Manufacturer and address.	Brand.	Guaranteed Found.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract. Per cent.
2033	The West Branch Flour Mfg. Co., West Branch, Mich.	Street Car Feed.	Guaranteed. Found.	11.99 12.25	2.40 3.63	66.08 67.09	4.03 3.78
2034	J. E. Bartlett Co., Jackson, Mich.	Bartlett's Malt Sugar Grains.	Guaranteed. Found.	20.00 20.56	15.00 19.65	44.40	6.00 5.92
2035	J. E. Bartlett Co., Jackson, Mich.	Michigan "Farmer" Brand Cotton Seed Meal.	Guaranteed. Found.	41.00 42.00	10.00 12.65	20.00 23.19	7.00 8.96
2036	McLaughlin Ward & Co., Jackson, Mich.	Crown Scratch Feed.	Guaranteed. Found.	10.00 10.06	3.00 2.70	66.00 66.80	5.00 2.96
2037	Clinton Sugar Refining Co., Clinton, Iowa.	Clinton Corn Gluten Feed.	Guaranteed. Found.	23.00 24.59	8.00 6.47	55.00 56.31	3.00 3.04
2038	Wm. Fluemer, Mt. Clemens, Mich.	Fluemer's Chicken Feed.	Guaranteed. Found.	10.50 10.76	4.55 2.10	12.30 73.94	3.15 3.10
2039	American Linseed Co., N. Y. & Chicago.	Old Process Linseed Oil Meal.	Guaranteed. Found.	34.00 34.04	9.00 7.07	43.00 35.23	6.00 8.12
2040	Grand Rapids Grain & Milling Co., Grand Rapids, Mich.	Purity Scratch Feed.	Guaranteed. Found.	9.36 12.77	4.62 4.27	67.00 67.24	3.62 4.17
2041	Chapin & Co., Hammond, Ind.	Unicorn Dairy Ration.	Guaranteed. Found.	26.00 28.00	10.00 10.75	50.00 43.61	5.50 6.64
2042	Chapin & Co., Hammond, Ind.	Ajax Flakes.	Guaranteed. Found.	30.00 30.01	14.00 10.64	30.00 38.02	11.00 11.80
2043	Hanley Milling Co., Inc., Petoskey, Mich.	Bran with Mill Run of screenings.	Guaranteed. Found.	13.56	9.57	57.68	3.76
2044	Hanley Milling Co., Inc., Petoskey, Mich.	Feed Meal.	Guaranteed. Found.	9.71	3.87	70.24	5.32
2045	American Milling Co., Peoria, Ill.	Sucrose Dairy Feed.	Guaranteed. Found.	18.50 18.90	13.00 11.25	48.00 50.43	2.50 3.07
2046	American Milling Co., Peoria, Ill.	Sucrose Scratch Feed.	Guaranteed. Found.	10.00 10.33	5.00 2.40	65.00 74.43	7.25 3.95
2047	American Milling Co., Peoria, Ill.	Sucrose Scratch Feed with 5 per cent grit.	Guaranteed. Found.	10.00 10.06	5.00 2.88	65.00 70.19	2.50 2.97

2048	American Milling Co., Peoria, Ill.	Chick Chick Scratch Feed.	Guaranteed Found.	10.00 10.59	5.00 2.75	65.00 69.84	2.50 2.68
2049	American Milling Co., Peoria, Ill.	Chick Chick Scratch Feed with 5 per cent grit.	Guaranteed Found.	10.00 11.81	5.00 2.90	65.00 65.92	2.50 2.57
2050	American Milling Co., Peoria, Ill.	Tip Top Scratch Feed.	Guaranteed Found.	10.00 11.37	4.50 3.10	70.00 69.70	2.50 2.68
2051	American Milling Co., Peoria, Ill.	Tip Top Scratch Feed with 5 per cent grit.	Guaranteed Found.	10.00 10.59	4.50 3.80	70.00 71.48	2.50 2.47
2052	American Milling Co., Peoria, Ill.	Tip Top Chick Feed.	Guaranteed Found.	10.00 10.59	5.00 2.58	65.00 70.10	2.50 2.88
2053	American Milling Co., Peoria, Ill.	Tip Top Chick Feed with 5 per cent grit.	Guaranteed Found.	10.00 10.24	5.00 3.60	65.00 59.25	2.50 2.98
2054	American Milling Co., Peoria, Ill.	Success Chick Feed.	Guaranteed Found.	10.00 10.24	5.00 3.55	65.00 74.94	2.50 3.07
2055	American Milling Co., Peoria, Ill.	Success Chick Feed with 5 per cent grit.	Guaranteed Found.	10.00 9.98	5.00 2.70	65.00 59.77	2.50 2.92
2056	The Larrowe Milling Co., Detroit, Mich.	Larow Feed.	Guaranteed Found.	19.00 19.95	14.00 12.13	50.00 51.12	3.00 3.75
2057	M. C. Peters Mill Co., Omaha, Neb.	Peters' June Pasture Dairy Meal.	Guaranteed Found.	10.00 12.09	25.00 21.02	44.00 46.84	.50 .98
2058	Rosch & Seiber Co., Houghton, Mich.	Roscoe Brand Scratch Feed.	Guaranteed Found.	10.00 10.15	5.00 1.25	66.11	2.50 3.25
2059	Bad Axe Grain Co., Bad Axe, Mich.	Egg Brand Poultry Feed.	Guaranteed Found.	10.94 11.29	2.86 2.60	70.73 72.28	3.04 3.33
2060	Bad Axe Grain Co., Bad Axe, Mich.	Axe Brand Ground Feed.	Guaranteed Found.	12.42 12.48	7.13 6.60	63.63 67.08	3.14 3.06
2061	Spratt's Patent (America) Limited, Newark, N. J.	Spratt's Poultry Food No. 3.	Guaranteed Found.	20.00 21.61	2.00 .35	60.00 64.40	2.50 2.46
2062	Spratt's Patent (America) Limited, Newark, N. J.	Ground Meat.	Guaranteed Found.	43.00 61.34	2.00	.70	10.00 10.02
2063	Darrah Milling Co., Big Rapids, Mich.	Unbolted Corn Meal.	Guaranteed Found.	11.38 10.59	4.10 1.80	63.37 71.06	4.65 4.06
2064	Humphreys-Godwin Co., Memphis, Tenn.	Dixie Brand Cottonseed Meal.	Guaranteed Found.	38.82 40.86	12.00 10.83	24.00 28.14	6.00 7.36
2065	Joe. Wellman's Sons, Port Huron, Mich.	Mixed Chicken Feed.	Guaranteed Found.	9.01	3.30	70.88	3.40

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).—Continued.

License No.	Manufacturer and address.	Brand.		Protein. Per cent.	Crude fibre. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract. Per cent.
2066	Portland Milling Co., Portland, Mich.	Champion Mixed Feed with ground screenings not exceeding mill run	Guaranteed. Found	13.56 14.52	8.47 7.78	59.54 59.71	3.58 3.72
2067	Portland Milling Co., Portland, Mich.	Puritas Corn & Oat Feed	Guaranteed. Found	10.41 10.67	6.38 6.06	68.43 67.96	4.23 4.00
2068	Thunder Bay Milling Co., Alpena, Mich.	Bradford's Coarse Corn Meal	Guaranteed. Found	7.87	1.85	75.70	2.70
2069	C. C. Wright, Owosso, Mich.	Occident Chick Feed	Guaranteed. Found	10.15 10.24	2.90 3.10	69.87 69.60	2.95 2.75
2070	C. C. Wright, Owosso, Mich.	Wright's Mixture (Scratch Feed)	Guaranteed. Found	10.41	2.75	70.24	2.75
2071	American Linseed Co., Chicago, Ill.	Cleveland Linseed Oil Meal	Guaranteed. Found	36.00 36.05	9.00 8.43	42.00 40.09	2.00 2.72
2072	Dewey Bros. Co., Blanchester, Ohio	Eagle Three D Grains	Guaranteed. Found	30.00 30.28	13.00 12.85	30.00 36.57	10.00 14.60
2073	Hirst & Bagley Linseed Co., Chicago, Ill.	H & B Ground Linseed Cake	Guaranteed. Found	34.00 34.83	9.00 7.45	42.00 35.77	8.00 10.20
2074	W. C. Northern, Little Rock, Ark.	Bee Brand Cotton Seed Meal	Guaranteed. Found	41.00 44.40	10.00 9.00	26.22	6.50 7.63
2075	Van Eyck Weurding Milling Co., Holland, Mich.	Poultry Feed	Guaranteed. Found	10.41 10.24	2.15 2.85	62.29 63.12	2.80 3.64
2076	Purina Mills, Branch Ralston Purina Co., St. Louis, Mo.	Purina Dairy Feed	Guaranteed. Found	19.00 20.74	15.00 16.95	45.00 44.46	3.50 3.40
2077	Purina Mills, Branch Ralston Purina Co., St. Louis, Mo.	Purina Feed with Molasses	Guaranteed. Found	9.30 9.58	11.70 12.00	59.20 59.33	1.70 2.76
2078	F. Becker, Grand Rapids, Mich.	Feed Corn Meal	Guaranteed. Found	7.79 8.84	1.55 1.40	67.41 77.09	3.75 3.25
2079	Purina Mills, Branch Ralston Purina Co., St. Louis, Mo.	Purina Chick Feed	Guaranteed. Found	11.00 12.15	4.00 1.53	65.00 72.89	3.00 3.18
2080	Purina Mills, Branch Ralston Purina Co., St. Louis, Mo.	Purina Scratch Feed	Guaranteed. Found	11.00 11.99	4.00 2.55	65.00 71.15	3.00 2.97

2081	Purina Mills, Branch Ralston Purina Co., St. Louis, Mo.	Purina Chicken Chowder with Charcoal.....	Guaranteed Found.....	17.00	9.00	56.00	3.00
				18.90	8.10	54.12	4.03
2082	Darling & Co., Chicago, Ill.	Darling's High Protein Meat Scraps.....	Guaranteed Found.....	55.00	3.00		.80
				57.05			8.29
2083	Darling & Co., Chicago, Ill.	Darling's Standard Meat Scraps.....	Guaranteed Found.....	45.00	3.00		.50
				49.61			5.76
2084	Darling & Co., Chicago, Ill.	Darling's Meat Crisps.....	Guaranteed Found.....	75.00	3.00		.50
				79.80			6.45
2085	Darling & Co., Chicago, Ill.	Darling's Granulated Bone.....	Guaranteed Found.....	20.00	3.00		.50
				26.25			4.59
2086	Darling & Co., Chicago, Ill.	Darling's 60 per cent Protein Digester Tankage.....	Guaranteed Found.....	60.00	3.00		.50
				60.64			2.40
2087	Armour Fertilizer Works, Chicago, Ill.	Armours Granulated Bone.....	Guaranteed Found.....	23.00			2.00
				25.46			
2088	Armour Fertilizer Works, Chicago, Ill.	Meat Meal.....	Guaranteed Found.....	60.00	2.00		10.00
				67.38			
2089	Armour Fertilizer Works, Chicago, Ill.	Blood Meal.....	Guaranteed Found.....	80.00	2.00		
				81.38			
2090	Amendt Milling Co., Monroe, Mich.	AMCO Alfalfa Meal.....	Guaranteed Found.....	12.00	35.00	38.30	.50
				13.83	29.05		1.57
2091	Dwight M. Baldwin, Jr., Minneapolis, Minn. (Baldwin Flour Mills)	Baldwin Flour Mills Wheat Bran with not exceeding mill run of ground screenings.....	Guaranteed Found.....	14.50	12.00		4.09
				14.96	10.42	53.91	5.00
2092	Dwight M. Baldwin, Jr., Minneapolis, Minn. (Baldwin Flour Mills)	Baldwin Flour Mills Wheat Shorts with not exceeding mill run of ground screenings.....	Guaranteed Found.....	15.00	11.00		5.00
				16.71	6.15	55.65	6.00
2093	Dwight M. Baldwin, Jr., Minneapolis, Minn. (Baldwin Flour Mills)	Baldwin Flour Mills Wheat Flour Middlings with not exceeding mill run of ground screenings.....	Guaranteed Found.....	16.50	7.00	59.53	5.00
				16.71	5.07		5.36
2094	Continental Cereal Co., Peoria, Ill.	Continental Gluten Feed.....	Guaranteed Found.....	29.00	10.50	40.00	10.50
				28.80	7.05	47.59	7.53
2095	Michigan Cereal Co., Port Huron, Mich.	Pea Bran.....	Guaranteed Found.....	20.91	20.55	45.12	2.02
2096	J. E. Bartlett Co., Jackson, Mich.	Creamo Brand Cotton Seed Feed Meal.....	Guaranteed Found.....	20.00	25.00		4.00
				20.30	36.60	25.28	4.45
2097	Model Milling Co., Port Huron, Mich.	Model Scratch Feed.....	Guaranteed Found.....	10.50	2.30	71.10	3.45
				10.41	1.70	74.34	3.45
2098	Model Milling Co., Port Huron, Mich.	Model Egg Mash.....	Guaranteed Found.....	13.21	5.25	63.34	4.70
				18.29	5.14	59.99	4.34

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).—Continued.

License No.	Manufacturer and address.	Brand.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract. Per cent.
2099	B. B. Hyde, Port Huron, Mich.	Ideal Poultry Feed	10.15 10.06	2.25 2.40	71.33 72.98	3.37 3.33
2100	Cancelled					
2101	J. E. Bartlett Co., Jackson, Mich.	Michigan Farmer Brand of Tankage.	33.44			13.54
2102	Frank J. Stuart, Pontiac, Mich.	Stuart's Chicken Feed.	8.66 9.71	3.32 1.96	70.01	2.85 2.89
2103	C. E. DePuy Co., Pontiac, Mich.	Peerless Scratch Feed	9.89 11.20	2.12 2.85	69.90 70.47	2.82 2.86
2104	C. E. DePuy Co., Pontiac, Mich.	Victor Chick Feed.	9.71 11.20	2.69 2.35	74.12 67.02	2.40 2.85
2105	McMoran Milling Co., Port Huron, Mich.	Protean Dairy Feed.	18.99 24.49	3.70 9.15	62.76 49.55	3.00 3.11
2106	W. J. Byrnes & Co., Chicago, Ill.	Daisy Chick Feed.	10.00 12.25	5.00 2.40	70.61	2.80 2.99
2107	W. J. Byrnes & Co., Chicago, Ill.	Royal Poultry Feed.	10.00	5.00		3.00
2108	Lichtenberg & Son, Detroit, Mich.	Farnel Horse Feed.	13.95 11.28	7.09 7.15	56.93 64.52	3.45 3.75
2109	Lichtenberg & Son, Detroit, Mich.	Farnel Summer Horse Feed.	14.00 10.40	7.46 6.97	57.41 63.39	3.62 3.53
2110	Lichtenberg & Son, Detroit, Mich.	Farnel Dairy Feed.	19.35 22.49	8.38 8.90	49.10 54.33	2.43 4.90
2111	Lichtenberg & Son, Detroit, Mich.	Lichtenberg's Chop Feed.	11.11 10.77	3.65 3.95	66.51 72.50	3.28 4.43
2112	J. J. Badenoch Co., Chicago, Ill.	C-e-lay	9.50 10.41	5.00 3.72	66.50 63.79	2.90 2.83
2113	Edwards & Loomis Co., Chicago, Ill.	Red Comb Alfalfa Meal	13.80 17.24	30.00 29.25	34.70	1.00 2.14

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2114	David Stott Flour Mills, Inc., Detroit, Mich.	Winner Chop Feed	Guaranteed Found	9.00 10.76	10.00 7.62	70.00 63.74	5.00 6.03
2115	Hottel & Co., Milwaukee, Wis.	Holstein Malt Brewers Grains	Guaranteed Found	25.00 27.13	14.00 16.15	41.10	5.00 5.32
2116	American Milling Co., Peoria, Ill.	AMCO Alfalfa Meal	Guaranteed Found	13.00 16.06	30.00 31.50	37.11	2.00 1.31
2117	American Milling Co., Peoria, Ill.	AMCO Process Old Linseed Meal	Guaranteed Found	30.00 32.90	10.00 8.06	30.00 38.46	5.00 6.00
2118	American Milling Co., Peoria, Ill.	Success Horse & Mule Feed	Guaranteed Found	9.00 10.76	12.00 13.34	50.00 60.09	2.50 2.51
2119	Valley City Milling Co., Grand Rapids, Mich.	Farmers Favorite Bran	Guaranteed Found	14.65 15.93	10.40 7.96	54.67 57.19	2.81 4.70
2120	Illinois Feed Mills, Branch Ralston Purina Co., St. Louis, Mo.	Feed Well Scratch Feed with grit	Guaranteed Found	10.00 12.34	6.00 3.27	60.00 66.34	3.00 3.72
2121	Chas. A. Krause Milling Co., Milwaukee, Wis.	Choice Alfalfa Meal	Guaranteed Found	12.00 13.48	35.00 30.75	39.03	1.00 2.04
2122	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Evergreen Feed	Guaranteed Found	12.00 12.13	30.00 16.90	39.20	1.00 1.16
2123	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Fancy Middlings	Guaranteed Found	12.00 15.84	7.00 3.32	60.23	4.50 6.61
2124	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Fancy Mixed Feed	Guaranteed Found	12.50 12.34	9.00 8.15	64.30	4.00 6.28
2125	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Hominy Feed	Guaranteed Found	10.00 12.07	6.00 4.25	65.81	5.00 8.07
2126	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Stock Feed	Guaranteed Found	10.00 10.94	9.00 9.40	62.24	4.50 6.10
2127	The Albert Dickinson Co., Chicago, Ill.	Pine Tree Scratch Feed	Guaranteed Found	10.00 10.50	5.00 2.90	60.00 66.43	2.50 2.79
2128	The Albert Dickinson Co., Chicago, Ill.	Globe Scratch Feed	Guaranteed Found	10.00 11.73	5.00 3.45	60.00 67.99	2.50 2.88
2129	The Albert Dickinson Co., Chicago, Ill.	Globe Developing Feed	Guaranteed Found	10.00 11.20	5.00 2.50	60.00 71.94	2.50 2.51
2130	The Albert Dickinson Co., Chicago, Ill.	Crescent Chick Feed	Guaranteed Found	10.00 10.41	5.00 1.85	60.00 70.83	2.50 3.34

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).—Continued.

Lot No.	Manufacturer and address.	Brand.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract. Per cent.
2131	The Albert Dickinson Co., Chicago, Ill.	Globe Egg Mash.	16.00 Found.	10.00 4.90	50.00 62.06	3.00 3.80
2132	The Albert Dickinson Co., Chicago, Ill.	White Cross Scratch Feed.	10.00 11.72	5.00 2.25	60.00 72.63	2.50 3.00
2133	The Albert Dickinson Co., Chicago, Ill.	White Cross Chick Feed.	10.00 10.06	5.00 1.45	60.00 70.85	2.50 2.69
2134	The Albert Dickinson Co., Chicago, Ill.	White Cross Stock Feed.	10.00 11.03	10.00 3.26	60.00 72.14	3.50 4.00
2135	The Albert Dickinson Co., Chicago, Ill.	Globe Chick Feed.	10.00 10.32	5.00 1.70	60.00 69.58	2.50 2.25
2136	The Albert Dickinson Co., Chicago, Ill.	White Cross Horse Feed.	10.00 Found.	8.00	60.00	2.50
2137	The Albert Dickinson Co., Chicago, Ill.	Alfalfa Meal.	12.00 Found.	35.00	35.00	1.00
2138	The Albert Dickinson Co., Chicago, Ill.	Queen Poultry Mash.	11.00 11.64	10.00 7.60	60.00 64.76	2.50 5.25
2139	The Albert Dickinson Co., Chicago, Ill.	King Pigeon Feed.	10.00 11.11	5.00 2.65	60.00 72.89	2.50 4.10
2140	Hubbard Milling Co., Mankato, Minn.	Flaky Bran.	15.00 15.40	11.50 11.15	53.95	4.50
2141	Wilbur Stock Food Co., Milwaukee, Wis.	Wilbur Poultry Tonic.	17.00 16.63	6.00 6.53	52.23	3.00 4.73
2142	New Prague Flouring Mill Co., New Prague, Minn.	"Seal of Minnesota" Bran.	14.60 16.45	11.00 7.05	44.00 58.38	4.75 4.45
2143	Purina Mills, Branch Ralston Purina Co., St. Louis, Mo.	Purina Sweet Feed.	10.30 14.13	18.00 17.36	48.00 50.70	1.20 2.22
2144	J. J. Badenoch Co., Chicago, Ill.	C-e-r-l-a-y Fine Chick Feed.	10.00 10.41	3.20 2.91	67.70 69.50	2.50 3.18
2145	McMorran Milling Co., Port Huron, Mich.	Crest Brand Poultry Feed.	10.23 11.20	3.30 3.60	67.08 69.97	2.55 3.08

2146	John B. A. Kern & Sons, Milwaukee, Wis.	Eagle Bran with screenings not exceeding mill run.	Guaranteed Found	15.00 13.75	10.00 10.75	50.00 54.35	3.25 3.91
2147	John B. A. Kern & Sons, Milwaukee, Wis.	Eagle Standard Middlings with screenings not exceeding mill run.	Guaranteed Found	16.00 17.06	7.60 7.90	50.00 56.07	5.15 5.02
2148	C. W. Cheney Co., Eau Claire, Wis.	Chicken Feed	Guaranteed Found	12.08	2.12	69.79	3.16
2149	McMorran Milling Co., Port Huron, Mich.	Crest Brand Chop Feed	Guaranteed Found	8.66 9.98	16.70 8.30	60.01 67.66	2.71 3.74
2150	M. G. Rankin & Co., Milwaukee, Wis.	Bran with ground screenings not exceeding mill run.	Guaranteed Found	14.50 16.45	9.60 9.48	52.00 55.67	4.00 4.40
2151	Bernhard Stern & Sons, Inc., Milwaukee, Wis.	Atlas Wheat Flour Middlings with ground screenings not exceeding mill run.	Guaranteed Found	16.00 17.41	8.00 8.72	58.57	4.50 5.25
2152	Bernhard Stern & Sons, Inc., Milwaukee, Wis.	Atlas Wheat Bran with ground screenings not exceeding mill run.	Guaranteed Found	15.00 17.50	12.00 7.63	58.54	3.50 4.25
2153	Crosenwett & Sons, Detroit, Mich.	Manhattan Stock Food	Guaranteed Found	10.68 11.11	2.83 2.40	64.36 70.39	4.30 3.70
2154	Crosenwett & Sons, Detroit, Mich.	Manhattan Poultry Food	Guaranteed Found	5.29 12.07	5.39 5.65	70.62 63.38	4.05 3.95
2155	Minnesota Lard Oil Co., Minneapolis, Minn.	Ground Oil Cake	Guaranteed Found	24.00 36.75	11.00 6.35	37.86	5.00 6.30
2156	Peninsular Milling Co., Flint, Mich.	Wheat Bran with ground screenings	Guaranteed Found	15.00 14.88	10.00 11.05	50.00 55.76	3.50 3.51
2157	Chicago Heights Oil Mfg. Co., Chicago, Ill.	"Heights" Corn Oil Cake Meal	Guaranteed Found	16.00 19.69	6.00 2.05	56.06	5.00 7.37
2158	Chicago Heights Oil Mfg. Co., Chicago, Ill.	Prize Cooked Hog Feed	Guaranteed Found	15.00 19.25	15.00 8.20	51.05	7.00 8.35
2159	J. J. Badenoch Co., Chicago, Ill.	Sunflower Poultry Feed	Guaranteed Found	10.00 11.02	5.00 2.75	57.20 73.78	2.50 3.25
2160	J. J. Badenoch Co., Chicago, Ill.	Sunflower Fine Chick Feed	Guaranteed Found	10.00	5.00	57.20	2.50
2161	J. J. Badenoch Co., Chicago, Ill.	Sunflower Pigeon Feed	Guaranteed Found	10.00 14.79	5.00 2.67	65.00 67.43	2.50 4.53
2162	J. J. Badenoch Co., Chicago, Ill.	Sunflower Developing Feed	Guaranteed Found	10.00 10.68	5.00 2.40	57.20 70.90	2.50 2.80
2163	J. J. Badenoch Co., Chicago, Ill.	Eggsday Meat Cereal Mash	Guaranteed Found	15.00 17.59	8.00 6.45	54.00 60.71	4.00 5.10

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).—Continued.

Locating No.	Manufacturer and address.	Brand.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract. Per cent.
2164	Thunder Bay Milling Co., Alpena, Mich.	Thunder Bay Scratch Feed.	10.85 11.90	3.85 3.75	67.35 68.03	3.05 2.50
2165	Wm. Goodrich & Co., Milwaukee, Wis.	Old Process Ground Lined Cake.	22.00 34.12	10.00 2.10	32.00 41.15	5.00 10.38
2166	Scheuren & Mok, Detroit, Mich.	Chop Feed.	7.70 7.96	10.90 3.28	65.17 66.06	3.18 11.07
2167	Scheuren & Mok, Detroit, Mich.	Cockcomb Chick Feed.	11.11	4.90	67.14	3.10
2168	Scheuren & Mok, Detroit, Mich.	Eagle Mixed Feed.	10.15 10.87	4.45 3.10	67.15 74.59	3.90 3.32
2169	King Milling Co., Lowell, Mich.	Kimco Bran.	13.56 14.79	8.45 9.60	55.69 56.66	4.00 3.96
2170	International Stock Food Co., Minneapolis, Minn.	International Grofast Calf Meal.	25.00 26.95	10.00 7.40	46.00 44.75	5.00 7.35
2171	John B. A. Kern & Sons, Milwaukee, Wis.	Eagle Red Dog.	18.00 17.94	3.00 2.08	58.50 64.63	5.00 4.83
2172	Sheffield-King Milling Co., Minneapolis, Minn.	Fancy Brodflake Wheat Bran and ground wheat screenings.	14.50 14.80	12.50 12.28	55.58	4.00 3.91
2173	M. C. Peters Mill Co., Omaha, Neb.	Alfa's Queen Mills Dairy Feed.	17.00 19.31	12.00 10.72	50.00 48.87	3.00 3.26
2174	The Sherwin-Williams Co., Cleveland, Ohio.	Sherwin-Williams Lined Oil Meal.	33.00	8.00		6.00
2175	Union Brokerage & Commission Co., Vicksburg, Miss.	"Durjan" Cotton Seed Meal.	41.00 41.66	10.00 9.10	25.56	9.64
2176	Feeders Supply Co., Kansas City, Mo.	"Equity Brand" Cottonseed Meal.	41.00	10.50	6.50	6.00
2177	Bad Axe Grain Co., Bad Axe, Mich.	Molasses Feed.	10.86 8.75	19.27 17.23	50.76 59.46	2.99 2.94
2178	Wyles & Co., Grand Rapids, Mich.	Y. X. Choice Cottonseed Meal.	41.00 41.74	10.00 9.75		7.00 6.82

2179	Wykes & Co., Grand Rapids, Mich.	Y. X. Corn Meal	Guaranteed. Found.	8.31 9.34	2.05 1.79	72.76 74.77	4.32 3.86
2180	Watson Higgins Milling Co., Grand Rapids, Mich.	Fine Corn Meal	Guaranteed. Found.	7.61 8.75	2.20 1.96	74.80 75.24	3.15 4.15
2181	Watson Higgins Milling Co., Grand Rapids, Mich.	Perfection Scratch Feed	Guaranteed. Found.	10.41 11.02	3.42 2.95	73.34 70.33	2.40 3.45
2182	Watson Higgins Milling Co., Grand Rapids, Mich.	Perfection Chick Feed	Guaranteed. Found.	9.80 9.89	1.90 2.32	69.36 66.83	2.64 2.88
2183	Wm. Boardman, Benton Harbor, Mich.	Success Chicken Feed	Guaranteed. Found.	10.41 10.32	2.45 2.47	70.36 71.56	2.75 2.75
2184	Texas Cakes & Linter Co., Dallas, Texas	Texoma Brand Cotton Seed Meal	Guaranteed. Found.	41.00 48.48	10.00 6.00	6.50 25.16	8.03
2185	Buckeye Cotton Oil Co., Cincinnati, Ohio.	41 per cent Buckeye Cotton Seed Meal	Guaranteed. Found.	41.00 42.87	10.00 9.65	32.00 27.72	6.50 7.16
2186	Standard Grocer & Milling Co., Holland, Mich.	Standard Scratch Feed	Guaranteed. Found.	10.24 10.15	3.15 2.93	69.26 70.91	2.76 3.44
2187	Kellogg Toasted Corn Flake Co., Battle Creek, Mich.	Invincible Dairy Feed	Guaranteed. Found.	17.24 15.40	6.11 7.23	61.07 60.62	4.71 4.70
2188	Stockbridge Elevator Co., Jackson, Mich.	Improved German Calf Meal	Guaranteed. Found.	23.00 24.50	6.00 3.27	56.03	4.00 3.95
2189	Union Seed & Fertilizer Co., New York	"Yellow Tag" Choice Cotton Seed Meal	Guaranteed. Found.	41.18 43.93	10.00 7.03	6.58 23.15	8.00 8.33
2190	The Union Seed & Fertilizer Co., New York	"American Red Tag" Cotton Seed Meal	Guaranteed. Found.	38.55 38.33	11.50 10.58	6.17 26.76	7.00 7.08
2191	Wash-Co. Alfalfa Mixed Feed & Milling Co., Ft. Calhoun, Neb.	Alfagreen	Guaranteed. Found.	10.00 12.11	25.00 15.11	40.00 45.64	.50 .55
2192	J. E. Bartlett Co., Jackson, Mich.	Jersey Brand Cotton Seed Meal	Guaranteed. Found.	38.50 35.00	12.00 16.13	28.00 23.05	6.00 6.54
2193	J. E. Bartlett Co., Jackson, Mich.	Farmer Brand Gluten	Guaranteed. Found.	26.00 20.91	13.00 12.75	40.00 49.67	7.00 7.50
2194	Star & Crescent Milling Co., Chicago, Ill.	Star & Crescent Bran	Guaranteed. Found.	15.00 16.89	10.00 10.35	53.81	4.00 4.55
2195	Star & Crescent Milling Co., Chicago, Ill.	Star Middlings	Guaranteed. Found.	15.00 16.28	8.00 8.30	56.85	4.00 3.92
2196	Arcada Farms Milling Co., Rosdout, Ill.	Ready Dairy Feed	Guaranteed. Found.	16.00 16.04	15.00 12.40	53.25	3.50 3.55

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1915).—Concluded.

Licenses No.	Manufacturer and address.	Brand.	Guaranteed Found.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen—Free extract. Per cent.	Ether extract. Per cent.
2197	David Stott Flour Mills, Inc., Detroit, Mich.	Stott's Spring Wheat Bran and wheat screenings.	Guaranteed Found.	16.00 15.93	10.00 9.68	70.00 53.59	4.00 4.67
2198	Big Diamond Mills Co., Minneapolis, Minn.	Big Diamond Bran with ground screenings not exceeding mill run.	Guaranteed Found.	14.00 14.79	11.07 12.35	51.34	4.00 4.20
2199	Big Diamond Mills Co., Minneapolis, Minn.	Big Diamond Standard Middlings with ground screenings not exceeding mill run.	Guaranteed Found.	14.67 18.90	9.35 6.75	52.83	4.21 6.25
2200	Beck Cereal Co., Detroit, Mich.	Royal Chop Feed.	Guaranteed Found.	8.31 10.33	5.10 7.75	64.23	5.81 5.62
2201	Wash-Co Alfalfa Mixed Feed & Milling Co., Ft. Calhoun, Neb.	Butlers Special Horse Feed.	Guaranteed Found.	10.00 10.43	12.00 12.38	58.00 57.20	2.00 2.33
2202	Caughy-Swift Co., Detroit, Mich.	C C C Chick Feed.	Guaranteed Found.	13.74	3.21	63.32	3.88
2203	International Sugar Feed Co., Minneapolis, Minn.	International Special Dairy Feed.	Guaranteed Found.	15.00 16.80	12.00 10.58	38.00 49.64	4.50 4.58
2204	International Sugar Feed Co., Minneapolis, Minn.	International Chinax Feed.	Guaranteed Found.	12.50 12.78	12.00 11.95	43.00 53.24	4.50 4.90
2205	J. W. Barwell, Waukegan, Ill.	Blatchford's Calf Meal.	Guaranteed Found.	24.00 26.69	6.75 4.88	49.55	5.95
2206	R. D. Eaton Grain & Feed Co., Norwich, N. Y.	Eaton's Perfection Mash Mixture for Laying fowls.	Guaranteed Found.	17.00 17.33	8.00 10.92	39.71	4.30
2207	L. B. Lovitt & Co., Memphis, Tenn.	Lovitt Brand Cotton Seed Meal.	Guaranteed Found.	41.00	9.00	25.00	7.50
2208	Argo Milling Co., Charlevoix, Mich.	Bolted Corn Meal.	Guaranteed Found.	10.41	3.40	69.44	5.55
2209	Meridian Grain & Elevator Co., Meridian, Miss.	Tip Top Choice Cotton Seed Meal.	Guaranteed Found.	41.00 43.06	10.00 4.40	31.70	6.50 7.80
2210	American Milling Co., Peoria, Ill.	Molasses Fat Maker.	Guaranteed Found.	8.00 9.90	16.00 11.16	50.00 53.81	2.46
2211	A. Hyde & Son, Grand Rapids, Mich.	Coarse Corn Meal.	Guaranteed Found.	8.75 8.93	1.95 1.68	73.23 76.84	2.90 2.96

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2212	Valley City Milling Co., Grand Rapids, Mich.	Farmers Favorite Middlings	Guaranteed Found	15 00	5 80	61 40	4 20
2213	King Milling Co., Lowell, Mich.	Kinco Middlings	Guaranteed Found	16 89	5 28	58 65	4 42
2214	Spencer-Kellogg & Sons, Inc., New York	Pure Old Process Oil Meal made from Linseed Cake	Guaranteed Found	14 61	6 17	63 29	3 70
2215	Tennessee Fibre Co., Memphis, Tenn.	Creamo Brand Cotton Seed Feed	Guaranteed Found	15 05	5 36	38 67	4 25
2216	Hannah & Lay Co., Traverse City, Mich.	Fine Feed	Guaranteed Found	33 00	10 00	35 00	5 00
2217	Archer-Daniels Linseed Co., Minneapolis, Minn.	Old Process Ground Linseed Cake	Guaranteed Found	34 39	7 72	43 73	6 07
2218	Cancelled			20 00	25 00	70 68	4 00
2219	Cancelled			21 96	15 50		4 04
2220	Imperial Cotto Milling Co., Peoria, Ill.	Imperial Cotto Brand Choice Cotton Seed Meal	Guaranteed Found	11 45	5 33		4 82
2221	Duluth-Superior Milling Co., Duluth, Minn.	Ground Feed-Corn & Oats	Guaranteed Found	32 00	10 00	39 32	6 00
2222	Quaker Oats Co., Chicago, Ill.	Quaker Dairy Feed with Molasses	Guaranteed Found	32 73	8 40		7 15
2223	Quaker Oats Co., Chicago, Ill.	Blue Ribbon Dairy Feed	Guaranteed Found				
2224	Security Remedy Co., Minneapolis, Minn.	Security Calf Food Compound	Guaranteed Found	41 00	9 00	29 75	6 80
2225	K & E Neumond, St. Louis, Mo.	"Goldens Kalb" Brewers Dried Grains	Guaranteed Found	43 40	7 25		7 90
				9 75	7 00		4 00
				16 00	14 50	50 00	4 00
				19 15	13 34	50 09	4 49
				25 00	12 00	46 00	3 40
				25 03	11 64	45 77	4 40
				9 80	6 00	93 03	4 50
				13 56	4 54		4 72
				24 00	13 00		6 00

DRUG ANALYST'S REPORT



July 1, 1915.

Hon. James W. Helme, State Dairy and Food Commissioner, Lansing,
Michigan:

Dear Sir:—I herewith submit my report on the analyses of drugs for the year ending June 30, 1915.

No. of Samples analyzed:

During this year a total of 558 official samples were examined. Of those 424 were reported as pure and 134 as adulterated. From the summary it can be seen that 75 different Pharmaceuticals are represented in this report and of this number only 26 are subject to adulteration in this state.

Sometime ago we adopted the plan of securing a large list of preparations from each and every manufacturer or pharmaceutical house doing business in this state. To do this it was necessary in some cases to have druggists, doctors and even wholesale houses put in special orders for them.

No. of Inspections:

The drug inspectors during the year made 2,199 inspections. A tabulation of their reports show some surprising results in regard to conditions of drug stores in the state of Michigan. For instance, six drug stores out of every hundred are without a U. S. Pharmacopoeia or a National Formulary (books of standards made so by the law passed in 1909). Further—they were without any of the commentators on Pharmacopoeia, such as Dispensatory or a work or pharmacy. 73 stores out of every hundred were found to have a Pharmacopoeia, 47 a Pharmacopoeia together with a National Formulary and 31 stores had a Dispensatory.

Condition of Stores:

In regard to the general condition of drug stores in this state a further tabulation shows that 15 out of every hundred were classed as *fine*, 63 as *good*, 21 as *poor* and one as *dirty*.

Condition of Fluid Extracts, Tinctures, etc.:

The general condition of fluid extracts, tinctures, etc., was reported as *fine* in two stores out of every hundred, 83 stores as *good*, 11 stores as *poor* and in 4 stores as *very bad*.

The percentage of druggists in this state who were found to be making their tinctures according to the Pharmacopoeia from the crude drugs is 6%. 87% make them from fluid extracts, 6% are buying them and 1% of the druggists are making them by guess.

No. of Prosecutions:

During the year several prosecutions were enacted for the violation of the drug act. However, this, as well as the work done along the line of Weights and Measures, will be found under its appropriate designation.

Legislation:

During the last session of the Legislature this Department was able to secure two important amendments to the drug law. One was a change in the definition of the term "drug" to include all mechanical devices of any description intended to be used for the cure, mitigation, or prevention of disease. The other was an amendment to prohibit any fraudulent statements in regard to the curative properties. With these additions this Department now hopes to further rid the state of questionable patent medicines.

Comments on Samples:

Only such drugs as need special comment will be discussed.

Alcohol. Two samples of alcohol were collected, both of which were reported as adulterated. One sample tested 66.7%, the other 80%. The U. S. Pharmacopoeia requires Ethyl Alcohol to test 94.9%.

Antiseptic Tablets. 13 samples were examined; one was reported adulterated for the reason that the tablets contained less Mercuric Chloride and Citric acid than that stated on the label.

Camphor Liniment. 33 samples were analyzed; 5 were condemned. The condemned samples had a camphor content of from 12.6% to 18.34%. 20% Camphor is the Pharmacopoeial requirement for this preparation.

Elixir of Potassium Bromide. 13 samples were collected and 3 condemned for containing less Potassium Bromide than was claimed on the label.

Elixir of Sodium Bromide. 12 samples were examined; two were condemned for being deficient in Sodium Bromide.

Essence of Pepsin. 20 samples of this preparation were collected and examined; 8 of them failed to pass for the reason that they were deficient in digestive power. Some of the samples had absolutely no digestive action on egg albumen.

Fowler's Solution. The Pharmacopoeia requirement for this preparation is that it shall contain the equivalent of 1% of Arsenic Trioxide. Of the 5 samples examined two passed, and the others contained .815%, .8%— and .609% respectively, of Arsenic Trioxide.

Mercurial Ointment. The United States Pharmacopoeia requires 50% Mercury content. Of the 8 samples examined 3 were low, one containing 20% of Mercury.

Nitro Glycerine Tablets. 15 samples of this preparation were collected and analyzed. Only one failed to comply. In 1914 four out of seven were found to be below standard.

Spirits of Camphor. 31 samples were examined; 25 were reported as pure and 6 as adulterated. The adulterated samples had a camphor content of from 1.6% to 9.1%. This preparation should contain 10% of camphor.

Spirits of Nitric. The United States Pharmacopoeia demands that

this preparation shall contain at least 4% Ethyl Nitrite. Out of 16 samples 9 were condemned for not complying in this respect.

Spirits of Peppermint. 48 samples were analyzed; 19 samples contained less than 10% of Oil of Peppermint, which is the Pharmacopoeia standard. One contained only .6 of 1% of Oil.

Tincture of Ginger. Of the 7 samples two were passed and five condemned for the reason that the Ginger solids were too low.

Tincture of Iodine. 110 samples of this preparation were collected and analyzed; 58 samples were passed as pure and 52 condemned as being adulterated. The U. S. Pharmacopoeia requires that this preparation shall contain 7% of Iodine and 5% of Potassium Iodide. Of the samples examined the Iodine content ranged from 1.68% to 15% and the Potassium Iodide from 0 to 10%. This preparation is found to be adulterated more than any other preparation on the market.

Zinc Oxide Ointment. 13 samples were examined; 10 passed and 3 condemned for not containing enough Zinc Oxide. The Pharmacopoeial requirement for this preparation is 20% Zinc Oxide.

Yours very truly,

ABEL R. TODD, Phg., Phc., B. S.,
State Drug Analyst.

SUMMARY OF DRUGS.

Article.	Total.	Not found adulterated misbranded or illegally sold.	Found adulterated misbranded or illegally sold.
Alcohol (Ethyl).....	2	0	2
Antiseptic tablets.....	13	12	1
Asperin tablets.....	2	2	0
Bismuth subnitrate tablets.....	2	2	0
Bromide potash.....	1	1	0
Brown's Mixture tablets.....	1	1	0
Caffein citrate.....	2	2	0
Calomel.....	7	7	0
Camphor liniment.....	33	28	5
Cream of Tartar.....	4	4	0
Digestion tablets.....	2	1	1
Dover's powders.....	1	1	0
Elixir buchu, juniper and Pot. Acet.....	1	1	0
Elixir five bromides.....	8	8	0
Elixir iron, quinine, and strychnine phosphate.....	3	2	1
Elixir pepsin.....	1	0	1
Elixir potassium bromide.....	13	10	3
Elixir sodium bromide.....	12	10	2
Essence pepsin.....	20	12	8
Essence Jamaica ginger.....	3	3	0
Emulsion Cod liver oil.....	8	8	0
Extract beef, iron and wine.....	1	1	0
Flavoring extracts.....	11	10	1
Fowler's solution.....	2	2	3
F. E. Aconite.....	3	3	0
F. E. Belladonna.....	3	3	0
F. E. Cascara sagrada.....	6	6	0
F. E. Cascara Sagrada aromatic.....	6	6	0
F. E. Cinchona.....	2	2	0
F. F. Hydrastis.....	1	1	0
F. E. Ipecac.....	2	2	0
F. E. Jamaica Ginger.....	5	5	0
F. E. Nux Vomica.....	1	1	0
Glycerine.....	1	1	0
Headache powders.....	5	4	1
Hydrogen peroxide.....	4	4	0
Hexamethylenamine tablets.....	13	13	0
Iodide potash tablets.....	1	1	0
Lead subacetate.....	1	1	0
Liquid pepsin.....	1	0	1
Mercurial ointment.....	8	5	3
Methylene blue tablets.....	5	5	0
Nitro glycerine tablets.....	15	14	1
Olive oil.....	3	3	0
Proprietary preparations.....	5	5	0
Phenacetine tablets.....	1	1	0
Phenolphthalein wafers.....	11	11	0
C. T. Potassium permanganate.....	12	12	0
Seidlitz powders.....	10	9	1
Sodium bromide tablets.....	1	1	0
Sodium salicylate tablets.....	1	1	0
Soap liniment.....	5	3	2
Spirits anise.....	1	1	0
Spirits camphor.....	31	25	6
Spirits lemon.....	1	1	0
Spirits nitre.....	16	7	9
Spirits peppermint.....	48	29	19
Spirits wintergreen.....	2	1	1
Sulphur.....	1	1	0
Strychnine tablets.....	7	7	0

SUMMARY OF DRUGS.—*Concluded.*

Article.	Total.	Not found adulterated misbranded or illegally sold.	Found adulterated misbranded or illegally sold.
Syrup Iodide of iron.....	2	1	1
Tr. Ferri chloride.....	2	2	0
Tr. Ginger.....	7	2	5
Tr. Iodine.....	110	58	52
Tr. Nux vomica.....	4	4	0
Tr. Opium.....	9	9	0
Tr. Vanilla.....	2	1	1
T. T. Acid arsenous.....	1	1	0
T. T. Calomel.....	9	9	0
T. T. Codeine sulphate.....	1	1	0
T. T. Morphine sulphate.....	1	1	0
Triple Bromide tablets.....	1	1	0
Witch hazel.....	1	1	0
Zinc oxide ointment.....	13	10	3
Totals.....	558	424	134

ANALYSES OF SAMPLES.

ALCOHOL.

U. S. P. alcohol should contain about 92.3% by weight or about 94.9% by volume of absolute ethyl alcohol.

No. 30293, Q-404. Sample of Ethyl Alcohol sold by C. H. Ritter and Company of Detroit and procured from A. D. Burnham, 807 McGraw, Detroit. Alcohol by wt. 66.7%. Alcohol by vol. 73.93%. Low in alcohol.

No. 31111, Q-460. Sample of ethyl alcohol manufactured by Ritter & Co., Detroit, and procured from A. D. Burnham, Detroit. Alcohol by vol. 80%. Low in alcohol.

ANTISEPTIC TABLETS.

No. 31795, Q-545. Sample of Bernay's Antiseptic Tablets manufactured by F. Stearns & Co., Detroit. Does not conform to statement on label. Low in mercuric chloride and citric acid.

CAMPHOR LINIMENT.

U. S. P. camphor liniment should contain 20% camphor 80% cotton-seed oil.

No. 30735, Z-417. Sample of camphor liniment manufactured and sold by J. L. Congdon & Co., Pentwater. Camphor 14.94%. Low in camphor.

No. 31131, Z-464. Sample of camphor liniment manufactured and sold by the D. T. Paulson Co., Grand Rapids. Camphor 12.6%. Low in camphor.

No. 31263, Z-493. Sample of camphor liniment manufactured and sold by R. I. Parrish Drug Co., Kalamazoo. Camphor 12.6%. Low in camphor.

No. 31264, Z-494. Sample of camphor liniment manufactured and sold by A. J. Erwin, Battle Creek. Camphor 7.55%. Low in camphor.

No. 31506, Z-523. Sample of camphor liniment manufactured and sold by James R. Burt, Grand Rapids. Camphor 18.34%. Low in camphor.

DYSPEPSIA TABLETS.

No. 33386, Q-635. Sample of Dyspepsia Tablets manufactured by the United Drug Co., Boston, Mass. The label claims pepsin present. If pepsin was added in their manufacture it has become inert as these tablets show no digestive power.

ELIXIR IRON, QUININE & STRYCHINE PHOSPHATE.

U. S. P. Elixir Iron, Quinine & Strychnine Phosphate should contain Quinine .875 gms., Strychnine .0275 gms. per 100 cc.

No. 31221, Z-484. Sample of elixir iron, quinine and strychnine phosphate manufactured by the United Drug Company, Boston, Mass., and procured from L. C. Van Gorden, Albion. Total alkaloids .52 gms. Low in total alkaloids.

ELIXIR PEPSIN.

No. 31508, Z-525. Sample of Elixir Pepsin N. F. manufactured by Eli Lilly & Co., Indianapolis, Ind., sold by the Hazelton & Perkins Drug Co., Grand Rapids and procured from White and White, Grand Rapids. Does not conform to N. F., 3rd Edition. Low in digestive strength.

ELIXIR POTASSIUM BROMIDE.

Elixir Potassium Bromide N. F. should contain Potassium Bromide 17.5 gms. per 100 cc.

No. 31772, Q-522. Sample of Elixir Potassium Bromide manufactured by the Schmidt Chemical Co., Jackson. Does not conform to N. F. 3rd Edition or to statement on label.

No. 33512, Q-701. Sample of Elixir Potassium Bromide manufactured by W. R. Warner Co., Philadelphia, Pa., and sold by Farrand, Williams & Clark, Detroit. Low in potassium bromide.

No. 33629, Q-711. Sample of Elixir Potassium Bromide manufactured by Lambert & Lowman, Detroit. Low in potassium bromide.

ELIXIR SODIUM BROMIDE.

Elixir Sodium Bromide N. F. should contain Sodium Bromide 17.5 gms. per 100 cc.

No. 31776, Q-526. Sample of Elixir Sodium Bromide manufactured by Nelson, Baker & Co., Detroit, Mich. Does not conform to N. F. 3rd edition. Low in sodium bromide.

No. 33628, Q-710. Sample of Elixir Sodium Bromide manufactured by Lambert & Lowman, Detroit. Low in sodium bromide.

ESSENCE PEPSIN. N. F.

No. 30138, Q-391. Sample of essence pepsin manufactured and sold by Goldman Bros., 418 Hastings St., Detroit. Not an N. F. preparation. Low in digestive power.

No. 30641, Z-401. Sample of essence pepsin procured from C. H. Jongejan, Grand Rapids. Not an N. F. preparation. Low in digestive power.

No. 31105, Q-454. Sample of essence pepsin procured from the Coonley Drug Co., 617 Woodward Ave., Detroit. Does not conform to N. F. 3rd edition. Low in pepsin strength.

No. 31108, Q-457. Sample of essence pepsin manufactured by Lambert & Lowman, Detroit, and procured from the City Pharmacy, 295 Jefferson Ave. East, Detroit. Does not conform to N. F. 3rd edition. Low in pepsin strength.

No. 31598, Z-540. Sample of Essence Pepsin manufactured and sold

by John Wyeth & Bro., Philadelphia, and procured from R. W. Johnson, Three Rivers. Does not conform to statement on the label.

No. 33498, Q-687. Sample of Essence Pepsin N. F. manufactured by Sharpe & Dahme, Baltimore Md., and sold by Farrand, Williams & Clark, Detroit. Does not conform to N. F. 3rd Edition. Low in pepsin strength.

No. 33783, Z-630. Sample of essence pepsin N. F. manufactured and sold by John J. Milburn, Eaton Rapids. Does not conform to N. F. requirements. Low in pepsin.

No. 33877, Z-638. Sample of essence pepsin N. F. sold by the Whitney Drug Co., Evart. Does not conform to N. F. requirements. Low in pepsin strength.

FLAVORING PREPARATIONS.

No. 31871, Q-567. Sample of Lemon Flavor manufactured by the Moore Co., Temperance. Not a true lemon extract. Misbranded.

FOWLERS SOLUTION.

Fowlers Solution U. S. P. should contain the equivalent of 1% Arsenic Trioxide.

No. 30609, Z-391. Sample of Fowlers Solution manufactured and sold by S. E. Wait & Son, Traverse City. Arsenic trioxide .8%. Low in arsenic trioxide.

No. 30737, Z-419. Sample of Fowlers Solution manufactured and sold by R. Lewis, Dowagiac. Arsenic Trioxide .815%. Low in Arsenic trioxide.

No. 30913, Z-439. Sample of Fowlers Solution manufactured and sold by W. W. Moore, Coopersville. Arsenic trioxide .609%. Low in arsenic trioxide.

HEADACHE POWDERS.

No. 30968, Z-445. Sample of Hoffer's Headache Powders manufactured and sold by J. L. Hoffer, 654 Fourth St., Grand Rapids. Sample contains an excessive amount of acetanilid, twice as much as claimed on the label.

LIQUID PEPSIN.

No. 31782, Q-532. Sample of Liquid Pepsin manufactured by Nelson, Baker & Co., Detroit. Does not conform to N. F. 3rd Edition. Low in digestive strength.

MERCURY OINTMENT.

Mercury Ointment U. S. P. should contain 50% mercury.

No. 31809, Q-559. Sample of Mercury Ointment procured from Farrand, Williams and Clark, Detroit. Does not conform to U. S. P. Low in mercury.

No. 31810, Q-560. Sample of Mercury Ointment manufactured by the Michigan Drug Co., Detroit. Does not conform to statement made on label. Low in mercury.

No. 33692, Q-743. Sample of Mercurial Ointment sold by Hazeltine, Perkins & Co., Grand Rapids. Low in mercury.

NITRO-GLYCERINE TABLETS.

No. 33517, Q-706. Sample of Nitro-glycerine tablets manufactured by Wm. R. Warner & Co., Philadelphia, Pa., and sold by Farrand, Williams & Clark, Detroit. Does not conform to statement on the label. Low in nitro-glycerine.

SEIDLITZ POWDERS. U. S. P.

No. 30840, Z-430. Sample of seidlitz powders manufactured and sold by W. S. Winegar, Lowell. Low in sodium bicarbonate, potassium and sodium tartrate.

SPIRITS CAMPHOR.

Spirits Camphor U. S. P. should contain 10% Camphor.

No. 31103, Q-452. Sample of spirits camphor manufactured and sold by Reedy & Groshaw, 116 Clifford St., Detroit. Camphor 8.3%. Low in camphor.

No. 31291, Z-500. Sample of spirits camphor manufactured and sold by B. C. Fisk, Edwardsburg. Camphor 9.13%. Low in camphor.

No. 31457, Z-519. Sample of spirits camphor manufactured and sold by R. Van Bochove, Grand Rapids. Camphor 8.63%. Low in camphor.

No. 33083, Q-574. Sample of Spirits Camphor manufactured and sold by W. L. Sutton, Pigeon. Camphor 1.66%. Low in camphor.

No. 33883, Q-754. Sample of spirits camphor manufactured and sold by C. D. Geer, Hale. Camphor 5.81%. Low in camphor.

No. 33959, Z-646. Sample of spirits camphor manufactured and sold by J. L. Congdon, Pentwater. Camphor 6.23%. Low in camphor.

SPIRITS NITRE.

Spirits Nitre U. S. P. should contain not less than 4% Ethyl Nitrite.

No. 31368, Z-517. Sample of spirits nitre manufactured and sold by the Conklin Drug Co., Marion. Ethyl nitrite 3.015%. Low in ethyl nitrite.

No. 33089, Q-579. Sample of Spirits Nitre manufactured and sold by Norton Bros., Kinde. Ethyl nitrite 2.98%. Low in ethyl nitrite.

No. 33119, Z-579. Sample of Spirits Nitre manufactured and sold by F. N. Colwell, Jackson. Ethyl nitrite 3.04%. Low in ethyl nitrite.

No. 33120, Z-580. Sample of Spirits Nitre manufactured and sold by Meade & Carringer, Jackson. Ethyl nitrite 1.43%. Low in ethyl nitrite.

No. 33204, Q-599. Sample of Spirits Nitre procured from A. L. King, Sanford. Ethyl nitrite 2.76%. Low in ethyl nitrite.

No. 33639, Q-721. Sample of Spirits Nitre manufactured and sold by J. F. Hartz & Co., Detroit. Ethyl nitrite 2.5%. Low in ethyl nitrite.

No. 33752, Q-744. Sample of Sweet spirits nitre manufactured and sold by E. R. O'Neil, 2231 Railroad, Port Huron. Ethyl nitrite 1.45%. Low in ethyl nitrite.

No. 33756, Q-748. Sample of sweet spirits nitre manufactured by the Cincinnati Chemical Co., and procured from H. W. Garlick, 837 Griswold St., Detroit. Ethyl nitrite 3.53%. Low in ethyl nitrite.

No. 33794, Z-633. Sample of spirits nitre manufactured and sold by H. M. Gibbs, Howard City. Ethyl nitrite 2.5%. Low in ethyl nitrite.

SYRUP IODIDE OF IRON.

Syrup iodide of iron U. S. P. should contain 5% by weight of Ferrous Iodide.

No. 30611, Z-393. Sample of iodide of iron manufactured and sold by Johnson Drug Co., Traverse City. Ferrous Iodide 4.0%. Low in ferrous iodide.

SPIRITS PEPPERMINT.

Spirits Peppermint U. S. P. should contain 10% Oil of Peppermint.

No. 30589, Q-425. Sample of spirits peppermint manufactured and sold by VanLoon & Freytag, 837 Dix, Detroit. Oil Peppermint 8.4%. Low in oil of peppermint.

No. 30752, Q-427. Sample of spirits peppermint manufactured and sold by E. C. Williams, North Adams. Oil of peppermint 3.5%. Low in oil of peppermint.

No. 31113, Q-462. Sample of spirits peppermint manufactured and sold by A. D. Burnham, 807 McGraw, Detroit. Oil of peppermint 4.5%. Low in oil of peppermint.

No. 31117, Q-466. Sample of spirits peppermint manufactured and sold by the Home Pharmacy, 405 Gratiot Ave., Detroit. Oil of peppermint 7.4%. Low in oil of peppermint.

No. 31127, Z-459. Sample of spirits peppermint manufactured and sold by Myers Bros., Gobles. Oil of peppermint 2.7%. Low in oil of peppermint.

No. 31151, Z-466. Sample of spirits peppermint manufactured and sold by H. E. Earle, Rockford. Oil of peppermint 5.5%. Low in oil of peppermint.

No. 31250, Z-494. Sample of spirits peppermint manufactured and sold by H. Randolph, St. Louis. Peppermint oil 4.3%. Low in oil of peppermint.

No. 31252, Q-476. Sample of spirits peppermint manufactured and sold by Ottaway's Pharmacy, 703 Oakland Ave., Detroit. Peppermint oil 0.6%. Low in oil of peppermint.

No. 31342, Z-503. Sample of spirits peppermint manufactured and sold by Arthur M. Morrow, Kalamazoo. Peppermint oil 8.8%. Low in oil of peppermint.

No. 31365, Z-514. Sample of spirits peppermint manufactured and sold by Cade Drug Co., Manton. Oil of peppermint 8.8%. Low in oil of peppermint.

No. 31468, Q-493. Sample of spirits peppermint manufactured and sold by E. C. Williams, North Adams. Oil of peppermint 7.4%. Low in oil of peppermint.

No. 31658, Q-505. Sample of Spirits Peppermint manufactured and

sold by A. T. Malony, Quincy. Oil of peppermint 4.7%. Low in oil of peppermint.

No. 33153, Q-588. Sample of Spirits Peppermint manufactured and sold by Frain & Wert, Laingsburg. Oil of peppermint 7.0%. Low in oil of peppermint.

No. 33155, Q-590. Sample of Spirits Peppermint manufactured and sold by Mrs. E. V. Glass, Bath. Oil of peppermint 4.9%. Low in oil of peppermint.

No. 33209, Z-585½. Sample of Spirits of Peppermint manufactured and sold by John D. Strachan, Muir. Oil of peppermint 7.0%. Low in oil of peppermint.

No. 33691, Q-742. Sample of spirits peppermint manufactured and sold by Mason & Beach, 200 Center St., Bay City. Oil of peppermint 6.4%. Low in oil of peppermint.

No. 33706, Z-617. Sample of spirits peppermint manufactured and sold by John H. Sours, Olivet. Oil of peppermint 8.0%. Low in oil of peppermint.

No. 33766, Z-626. Sample of spirits peppermint manufactured and sold by F. J. Schouten, Holland. Oil of peppermint 8.0%. Low in oil of peppermint.

No. 33884, Q-755. Sample of spirits peppermint manufactured and sold by C. D. Geer, Hale. Oil of peppermint 5.5%. Low in oil of peppermint.

SPIRITS WINTERGREEN.

Spirits Wintergreen U. S. P. should contain 5% Oil of Wintergreen.

No. 33084, Q-575. Sample of Spirits Wintergreen manufactured and sold by W. L. Sutton, Pigeon. Oil of wintergreen 4.2%. Low in oil of wintergreen.

SOAP LINIMENT.

Soap Liniment U. S. P. should contain 6% soap and 4.5% camphor.

No. 30721, Z-413. Sample of Soap liniment procured from Jay L. Bullock, Three Rivers. Low in camphor.

No. 33092, Q-582. Sample of Soap Liniment manufactured and sold by Norton Bros., Kinde. Camphor 3.11%, soap 10.45%. Low in camphor. Contains an excessive amount of soap.

TINCTURE GINGER. U. S. P.

No. 31655, Q-502. Sample of Tincture Ginger manufactured and sold by C. A. Wright & Son, Tecumseh. Low in alcoholic strength, thereby making the ginger extract too low.

No. 32041, Z-567. Sample of Tincture Ginger manufactured and sold by Arthur L. Sly, White Pigeon. Low in alcoholic strength, thereby making the ginger extract too low.

No. 33117, Z-577. Sample of Tr. Ginger manufactured and sold by the Big Rapids Pharmacy, Big Rapids. Not U. S. P. Low in alcohol and ginger.

No. 33152, Q-587. Sample of Tr. Ginger manufactured and sold by Frain & Wert, Laingsburg. Not U. S. P. Low in alcohol and ginger.

No. 33157, Q-592. Sample of Tr. Ginger manufactured and sold by Mrs. E. V. Glass, Bath. Not U. S. P. Low in alcohol and ginger.

TINCTURE IODINE.

Tincture of Iodine U. S. P. should contain 7 gms. Iodine and 5 gms. Potassium Iodide per 100 cc.

No. 30693, Z-403. Sample of tincture iodine manufactured and sold by L. H. Morganthaler, Ionia. Not U. S. P. Low in iodine and potassium iodide. Iodine 6.14 gms. Potassium iodide 3.57 gms. per 100 cc.

No. 30698, Z-409. Sample of tincture iodine manufactured and sold by Eckel Drug Co., Petoskey. Iodine 6.14 gms., potassium iodide 3.1 gms. per 100 cc. Low in iodine and potassium iodide.

No. 30738, Z-420. Sample of tincture iodine manufactured and sold by James H. Bryan, Charlotte. Iodine 6.6 gms., potassium iodide 3.443 gms. per 100 cc. Low in potassium iodide.

No. 30753, Q-428. Sample of tincture iodine manufactured and sold by E. C. Williams, North Adams. Iodine 4.315 gms., potassium iodide none. Low in iodine and contains no potassium iodide.

No. 30758, Z-422. Sample of tincture iodine manufactured and sold by A. E. Mulholland, Hastings. Iodine 5.889 gms., potassium iodide 4.713 gms. per 100 cc. Low in iodine.

No. 30788, Z-427. Sample tincture iodine manufactured and sold by Percy H. Lewis, Watervliet. Iodine 2.056 gms., potassium iodide 0.643 gms. per 100 cc. Low in iodine and potassium iodide.

No. 30792, Z-432. Sample tincture iodine manufactured and sold by V. J. Dickerson, Lakeview. Iodine 4.82 gms., potassium iodide 4.112 gms. per 100 cc. Low in iodine and potassium iodide.

No. 30844, Q-430. Sample tincture iodine manufactured and sold by James Manning, Deerfield. Iodine 12.03 gms., potassium iodide 2.173 gms. per 100 cc. High in iodine and low in potassium iodide.

No. 30873, Z-436. Sample tincture iodine manufactured and sold by E. L. LaRocque, St. Ignace. Iodine 5.12 gms., potassium iodide 3.1 gms. per 100 cc. Low in iodine and potassium iodide.

No. 30889, Q-434. Sample tincture iodine manufactured and sold by R. G. Mitter, 1167 Warren W., Detroit. Iodine 3.86 gms., potassium iodide 1.366 gms. per 100 cc. Low in iodine and potassium iodide.

No. 30892, Q-437. Sample tincture iodine manufactured and sold by Beach & Cloonan, 30 Saginaw St., Pontiac. Iodine 4.87 gms., potassium iodide 3.0 gms. per 100 cc. Low in iodine and potassium iodide.

No. 30911, Q-439. Sample of Tr. Iodine manufactured and sold by A. Korth, Jr., 994 Kercheval, Detroit. Iodine 6.9 gms., potassium iodide 2.4 gms. per 100 cc. Low in potassium iodide.

No. 30915, Z-441. Sample of Tr. Iodine manufactured and sold by B. Schutte, Grand Rapids. Iodine 6.09 gms., potassium iodide 3.963 gms. per 100 cc. Low in iodine and potassium iodide.

No. 30928, Q-440. Sample of Tr. Iodine manufactured and sold by J. C. Campbell, 463 Concord St., Detroit. Iodine 6.09 gms., potassium iodide 3.204 gms. per 100 cc. Low in iodine and potassium iodide.

No. 31033, Z-450. Sample of Tr. Iodine manufactured and sold by S. Barmore, Niles. Iodine 3.43 gms. potassium iodide 3.933 gms. per 100 cc. Low in iodine and potassium iodide.

No. 31099, Q-448. Sample of Tr. Iodine manufactured and sold by J. C. Berridge, Flint. Iodine 8.3 gms., potassium iodide 2.063 gms. per 100 cc. Contains an excessive amount of iodine and is low in potassium iodide.

No. 31104, Q-453. Sample of Tr. Iodine manufactured and sold by the Vaughan Pharmacy, 1760 Michigan Ave., Detroit. Iodine 5.51 gms., potassium iodide 1.885 gms. per 100 cc. Low in iodine and potassium iodide.

No. 31112, Q-461. Sample of Tr. Iodine manufactured and sold by A. D. Burnham, 807 McGraw, Detroit. Iodine 3.22 gms., potassium iodide 6.6 gms. per 100 cc. Low in iodine.

No. 31132, Z-465. Sample of Tr. Iodine manufactured and sold by F. H. Escott, Grand Rapids. Iodine 3.31 gms., potassium iodide 2.922 gms. per 100 cc. Low in iodine and potassium iodide.

No. 31153, Z-468. Sample of Tr. Iodine manufactured and sold by R. W. Cochrane, Kalamazoo. Iodine 9.65 gms., potassium iodide 5.569 gms. per 100 cc. Contains an excessive amount of iodine.

No. 31157, Z-472. Sample of Tr. Iodine manufactured and sold by the Miller Drug Co., Union City. Iodine 2.946 gms., potassium iodide none. Low in iodine and potassium iodide.

No. 31158, Z-473. Sample of Tr. Iodine manufactured and sold by G. K. Whiting, Union City. Iodine 15.24 gms., potassium iodide 8.75 gms. per 100 cc. Contains an excessive amount of iodine and potassium iodide.

No. 31193, Z-477. Sample of Tr. Iodine manufactured and sold by Percy H. Lewis, Watervliet. Iodine 10.78 gms., potassium iodide 9.759 gms. per 100 cc. Contains an excessive amount of iodine and potassium iodide.

No. 31246, Z-488. Sample of Tr. iodine manufactured and sold by E. B. Swift, Stanton. Iodine 6.04 gms., potassium iodide 2.94 gms. per 100 cc. Low in iodine and potassium iodide.

No. 31322, Q-487. Sample of Tr. Iodine manufactured and sold by Crowley Milner & Co., Detroit. Iodine 7.0 gms., potassium iodine 3.0 gms. per 100 cc. Low in potassium iodide.

No. 31343, Z-504. Sample of Tr. iodine manufactured and sold by B. F. Scott, Lake City. Iodine 2.79 gms., potassium iodide 2.595 gms. per 100 cc. Low in iodine and potassium iodide.

No. 31362, Z-512. Sample of Tr. Iodine manufactured and sold by the Eckel Drug Co., Petoskey. Iodine 7.6 gms., potassium iodide 3.833 gms. per 100 cc. Low in potassium iodide.

No. 31364, Z-513. Sample of Tr. iodine manufactured and sold by C. W. Fallas, Petoskey. Iodine 6.5 gms., potassium iodide 3.1 gms. per 100 cc. Low in potassium iodide.

No. 31366, Z-515. Sample of Tr. iodine manufactured and sold by Chas. H. Bostick, Manton. Iodine 6.04 gms., potassium iodide 3.128 gms. per 100 cc. Low in iodine and potassium iodide.

No. 31367, Z-516. Sample of Tr. iodine manufactured and sold by

the Torbeson Drug Co., Cadillac. Iodine 6.4 gms., potassium iodide 0.804 gms. per 100 cc. Low in iodine and potassium iodide.

No. 31467, Q-492. Sample of Tr. iodine manufactured and sold by E. C. Williams, North Adams. Iodine 5.46 gms., potassium iodide 2.031 gms. per 100 cc. Low in iodine and potassium iodide.

No. 31526, Z-529. Sample of Tincture Iodine manufactured and sold by W. H. Quigley, Grand Rapids. Iodine 6.477 gms., potassium iodide 3.579 gms. per 100 cc. Low in potassium iodide.

No. 31704, Z-547. Sample of Tincture Iodine manufactured and sold by Vanpell & Aldworth, Holland. Iodine 6.34 gms., potassium iodide 3.85 gms. per 100 cc. Low in iodine and potassium iodide.

No. 31937, Z-551. Sample of Tincture Iodine manufactured and sold by the Miller Drug Co., Union City. Iodine 4.67 gms., potassium iodide 3.7 gms. per 100 cc. Low in iodine and potassium iodide.

No. 32037, Z-563. Sample of Tincture Iodine manufactured and sold by the Cadillac Drug Co., Cadillac. Sample is not Tincture Iodine although labeled such. Sample is Tincture of Opium.

No. 33018, Z-571. Sample of Tincture Iodine manufactured and sold by A. J. Gibson, Grand Rapids. Iodine 6.0 gms., potassium iodide 5.9 gms. per 100 cc. Low in iodine.

No. 33091, Q-581. Sample of Tincture Iodine manufactured and sold by Norton Bros., Kinde. Iodine 5.71 gms., potassium iodide 5.234 gms. per 100 cc. Low in iodine.

No. 33095, Q-585. Sample of Tincture Iodine manufactured and sold by L. A. Hooper, Caro. Iodine 7.3 gms., potassium iodide 0.658 gms. per 100 cc. Low in potassium iodide.

No. 33096, Q-586. Sample of Tincture Iodine manufactured and sold by Coad Bros., Caro. Iodine 6.65 gms., potassium iodide 2.871 gms. per 100 cc. Low in potassium iodide.

No. 33121, Z-581. Sample of Tr. Iodine manufactured and sold by M. F. Conway, Jackson. Low in iodine and potassium iodide.

No. 33122, Z-582. Sample of Tr. Iodine manufactured and sold by P. Keyser, Jackson. Low in iodine and potassium iodide.

No. 33200, Q-595. Sample of Tr. Iodine manufactured and sold by F. A. Schutte, Hemlock. Low in iodine and potassium iodide.

No. 33210, Z-586. Sample of Tr. Iodine manufactured and sold by E. B. Swift, Stanton. Low in iodine and potassium iodide.

No. 33555, Q-708. Sample of Tr. Iodine manufactured and sold by Blink & Kirchner, Saginaw. Low in iodine.

No. 33646, Q-728. Sample of Tr. Iodine manufactured and sold by J. F. Hartz Co., Detroit. Low in iodine and potassium iodide.

No. 33704, Z-615. Sample of Tr. Iodine manufactured and sold by C. B. Cretsinger, Kalamazoo. Low in iodine.

No. 33753, Q-745. Sample of Tr. iodine manufactured and sold by E. R. O'Neil, 2231 Railroad St. Port Huron. Potassium iodide 2.72 gms. per 100 mls. Low in potassium iodide.

No. 33757, Q-749. Sample of Tr. iodine manufactured and sold by Rollin Woodward, 672 Monroe Ave., Detroit. Potassium iodide 1.945 gms. per 100 mls. Low in potassium iodide.

No. 33760, Z-619. Sample of Tr. iodine manufactured and sold by

M. V. Wilson, Sand Lake. Potassium iodide 3.936 gms. per 100 mils. Low in potassium iodide.

No. 33784, Z-631. Sample of Tr. iodine manufactured and sold by W. N. Armstrong, Concord. Iodine 6.0 gms. per 100 Mils. Low in iodine.

No. 33882, Q-753. Sample of Tr. iodine manufactured and sold by C. D. Geer, Hale. Iodine 1.0 gms. per 100 Mils. Potassium iodide none. Low in iodine and potassium iodide.

No. 33963, Z-649. Sample of Tr. iodine manufactured and sold by W. B. Conley, Whitehall. Iodine 1.68 gms. per 100 Mils. Potassium iodide 5.10 gms. per 100 Mils. Low in iodine and potassium iodide.

TR. VANILLA. U. S. P.

No. 31251, Q-475. Sample of Tr. vanilla manufactured and sold by T. W. Hillier, 1064 Oakland Ave., Detroit. Sample is not a pure tincture of vanilla. It is an imitation extract made by dissolving vanillin in dilute alcohol and coloring with caramel.

ZINC OXIDE OINTMENT.

Zinc Oxide Ointment U. S. P. should contain zinc oxide 20%.

No. 31102, Q-451. Sample of zinc oxide ointment manufactured by Nelson, Baker & Co., Detroit, and procured from Reedy & Groshaw, 116 Clifford St., Detroit. Zinc oxide 18.2%. Does not contain sufficient zinc oxide.

No. 33229, Q-603. Sample of zinc oxide ointment manufactured by the American Druggists' Syndicate, New York. Low in zinc oxide.

No. 33259, Z-590. Sample of zinc oxide ointment manufactured and sold by Harry G. Allges, Wayland. Low in zinc oxide.

WEIGHTS AND MEASURES.



SECOND ANNUAL REPORT

OF THE

State Superintendent of Weights and Measures

OF THE

STATE OF MICHIGAN

FOR THE

YEAR ENDING JUNE 30, 1915

JAMES W. HELME,
State Superintendent of Weights and Measures.

BURR B. LINCOLN,
Deputy Superintendent of Weights and Measures.



PLATE NO. 1. WEIGHTS AND MEASURES CONFISCATED IN BAY COUNTY.

Dairy and Food Department,
Division of Weights and Measures,
Lansing, Michigan.

Hon. Woodbridge N. Ferris, Governor:

Sir:—In accordance with the provisions of Act No. 168, Public Acts of 1913, I herewith submit to you the second annual report of the Weights and Measures Division of the Dairy and Food Department for the year ending June 30, 1915.

A few cities and counties have appointed sealers of weights and measures since the last report. Following is a list of counties and cities which now have sealers: The counties of Gladwin, Bay, Grand Traverse, Menominee, St. Clair, Washtenaw, Ontonagon, Alger, Iosco, Marquette, Eaton, Huron and Saginaw. The cities of Battle Creek, Muskegon, Kalamazoo, Detroit, Lansing, Adrian, Flint, Cheboygan, Grand Rapids, Greenville, Ludington, Belding, Owosso, Pontiac, Jackson, Alpena, Holland, Highland Park and Albion.

It is the opinion of the State Sealer of Weights and Measures that the law should be changed to make the appointment of a county sealer compulsory rather than optional with the Board of Supervisors as it now is. All of the sealers, with one or two exceptions, have heartily cooperated with this Department in enforcing the provisions of the Weights and Measures Law and the rules and regulations promulgated by this Department. As a result, Michigan is in a much better condition from a weights and measures standpoint than it was one year ago.

Many types of illegal scales and measures have been almost eliminated from the State and a great saving in money has been rendered the people. Plate No. 1 shows a collection of faulty weights and measures confiscated by the ex-sealer of Bay county. This represents only a very small portion of the measures and scales condemned, confiscated and destroyed by him. Nearly all of the other sealers have as good a collection or better.

We have been doing all that we can to educate the public in its rights, and expose the practices followed by the short weight or measure offender. The most satisfactory method is the educational exhibit shown at fairs and during health weeks. Last year we had an exhibition train on the road for a month which visited most of the important cities. Along with the food exhibit was one showing a large number of defective scales and measures. Plans are being laid to hold exhibits in schools to educate the children.

The work of this Department has been largely in the nature of instructing new sealers as to their duties; inspecting scales in sections

where conditions were bad; looking after certain kinds of special scales, as sugar beet; examining new types of scales and seeing that the scale was so constructed that the weigher could be reasonably sure of giving accurate weight and computing the money values correctly; computing money value charts, and examining the net weight or measure of package goods to see that they were correct. (These require constant inspection.)

GLASS FRUIT JARS.

We found that one of the largest glass fruit jar manufacturers in the United States was manufacturing two quart jars which were over one-half pint shy. While these fruit jars are used largely by the housewives for preserving fruit and in that way cause no loss, yet many of them send these jars to the grocery store to be filled with vinegar, molasses and other liquids. The grocer fills them for two quarts without measuring the commodity. In Northern Michigan a large proportion of the maple syrup manufactured is put into these same two-quart jars. After a controversy with the manufacturers, they changed the form and are now putting out a full two-quart size.

Plate No. 2 shows one of these fruit jars. The one-half pint glass graduate represents the shortage.

DRY MEASURES.

Probably our greatest work was cleaning the State of dry measures which held the correct cubic inch content of a stricken measure but did not have the right diameter. The law states the standard for a bushel as 2150.42 cub. in., which is a stricken bushel used for measuring grains. Sec. 4899, Compiled Laws of 1897, sets a standard for the heaped bushel in the following language:

"The half bushel, and the parts thereof, shall be the standard measure for fruits and other commodities customarily sold by heaped measure, and in measuring such commodities, the half bushel or other smaller measure shall be heaped as high as may be without special effort or design."

The next section provides for the weights per bushel.

In experimenting with potatoes, we found that a measure should have a diameter sufficient so that by throwing potatoes on with a fork or shovel, sufficient heap could be obtained easily without special effort or design to have the required weight. We found that the narrower the measure, the less it would hold, although it might have the required cubic inch content. There were three types of peck measures commonly in use in the State.

The inspectors of this department condemned, confiscated or destroyed 7,033 dry measures which alone was worth to the people of the State the \$35,000 appropriation allowed the Department for all its work, inspecting foods, weights and measures, and the various other duties assigned it.



Plate No. 11.—Two-quart glass fruit jar which was used extensively in Michigan that was over one-half pint shy.



Plate III.—The peck measure on the left has fifteen pounds of potatoes in it. The center measure and the one on the right do not hold fifteen pounds although having the cubic inch contents of a peck. It takes the extra potatoes piled around the outside of each measure to make the fifteen pounds necessary.

The middle measure in Plate III holds an average of thirteen pounds, making a two pound shortage on a peck. On a thousand bushels the shortage would be 8,000 pounds. Retailing for 80c a bushel, the loss to the consumer would be \$106.66. As these measures generally last for a number of years, the destroying of them meant a great saving to each consumer buying vegetables from them.

Mrs. Myra C. Wheelan, the only lady inspector in our Department condemned 1,614 of these measures or 22% of the total number condemned.

LIQUID AND DRY MEASURES.

Another practice followed by a large number of dealers is to use a liquid quart instead of a dry quart in measuring beans, cranberries and other fruits and vegetables. The liquid quart contains 57.75 cubic inches while the dry quart contains 67.2 cubic inches making the liquid quart 9.45 cubic inches less than the dry quart which makes a loss to the consumer of $4\frac{1}{2}$ quarts on the bushel. We have practically eliminated the practice. The cut shows a dry quart and a liquid quart filled with beans and the glass graduate shows the amount the liquid measure holds less than the dry measure.

SCALES.

We have condemned and driven out of the trade certain types of scales, such as slide beam scales with a computing chart and also the so-called jump chart computing scales. We have allowed the users of slide beam scales to set the scale where it will weigh correctly and take off the lever that controls the slide so that the computing part cannot be used. We found this type when properly adjusted would weigh correctly but would not compute money values accurately.

The jump chart scale was one of the first types of computing scales put out, and was the subject of considerable litigation. One of the reasons for so many of these scales being found in the State was because Lieutenant Austin, City Sealer of Detroit, had an injunction served restraining him from condemning the scale because the State Law did not at that time give the city authority to make an ordinance covering the charts on computing scales. The present law gives us authority to make rules and regulations as to the manner of chart used. Since then, we have condemned these scales all over Michigan. The Department has insisted that all scales be in balance, and many of our hardest controversies have been over this point. A scale may test accurately when properly set at a balance, and may bear our seal of approval, but the storekeeper, either through carelessness or otherwise, lets the scale get balanced at one ounce or more, beating the consumer of that much on the first pound. This is a matter that the public should watch. They should insist that the scale be at balance as the Weights and Measures Inspector may not have been in the store for a considerable period of time.

Nearly every store in Michigan has a small spring scale of from two to four pounds capacity, for the purpose of weighing candy and small

fruits. These scales are so cheap in their construction that, with very few exceptions, they cannot weigh accurately for any length of time. The Inspectors are bothered with this type of scale constantly coming back to the trade after we have gone through a section and cleaned them out. As yet we have found no remedy except constant inspection.

We have under consideration the making of a new set of rules and regulations. The work of the sealers has advanced to such a stage and the conditions in the state have become so changed, that it is necessary that we revise the old regulations. We have also taken up new lines of inspection not attempted last year, such as the inspection of drug and cream test scales. The scale companies have cooperated with us in every way for which I thank them.

CREAM TEST SCALES AND TEST BOTTLES.

During the past year, the Dairy and Food Department has been conducting a series of experiments by testing milk and cream with the different types of cream scales and bottles now on the market. The weighing and testing of cream is one of the most important businesses carried on in Michigan, as the money values determined by the transactions over cream testing scales and bottles is more than the money values determined by any other type of scale in the State. We found that to get an accurate test, scales for this purpose should be very sensitive, and there are types of cream scales on the market which are very sluggish. Our experiments showed a large variation in the reading of the test on such types of scales. We decided that the sensibility reciprocal should be one-half of a grain, or one drop of cream which would make one of the most sensitive scales in use in the trade. This was necessary because a small sample was used for the purpose of determining the money value. Our creamery inspectors have been equipped with an outfit to test scales and weights and we have found many short.

BOTTLES.

We gathered samples of the different types of milk bottles being used in the State and found that many creameries were using 18 gram 50% bottles and a 9 gram weight, and doubling the reading. If there happened to an error in either the weighing or the reading, the doubling of the reading doubled the error. As the old law stated the amount of cream to be tested as 18 grams, we could not legally seal 9 gram weights or bottles. We found that in the 18 gram 50% 5 inch high test bottles the diameter of the neck was so wide that a drop of cream did not make enough difference in the reading to be perceptible, and the long neck 18 gram bottle could not be set in the machines that the majority of the creameries and cream stations were using. Our experiments showed that a 9 gram weight used with a 9 gram bottle was just as accurate as an 18 gram weight with a long neck bottle. As we found many bottles which were not marked distinctly and large numbers which were inaccurately graduated, we decided to ask the legislature to change the Babcock Test Bottle Law, in which the standard was set at 18 grams,

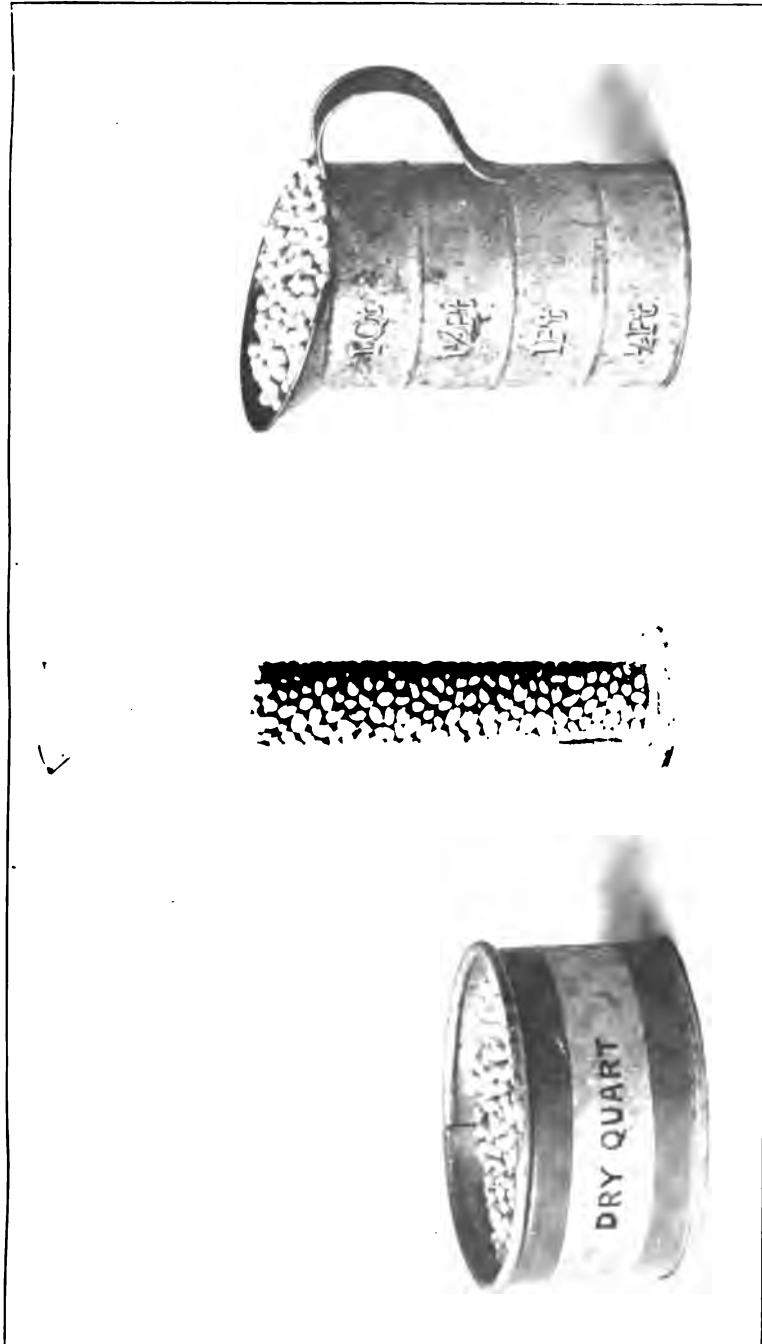


Plate IV.—The above picture shows the difference in the amount of beans; a liquid quart holds less than a dry quart 9.45 cubic inches or four and one-half quarts to the bushel.



Plate No. V.—Shows two quart measures having the requisite cubic inches. The taller one was taken from a Detroit fruit stand and contains seven peaches; the short one is a standard legal measure and contains nine peaches. By the use of the tall measure the dealer gains two peaches in every quart or a total of 64 peaches in every bushel. It is a good showing of why measures should have the legal diameter of five and three-eighths inches.

and incorporate in it a provision providing for a 9 gram bottle for testing cream. We recommended the use of the same standard for bottles as that established by the Bureau of Standards in Washington.

The two types of bottles that were made standards are the short neck 9 gram 50% bottle, and the long neck 9 gram 50% bottle. We did not recommend any less than 50% bottles as standards because cream might be sold at any time testing over 40% and there is a custom of putting the dividers on a 30 or 40% bottle and guessing at the percentage over graduations which does not tend toward accuracy.

The Department decided to test free of charge all bottles sent in. We found it necessary to hire an extra clerk expressly for that purpose. Each bottle is measured and tested separately and then stamped with the letters S G M if it complies with the law. This is done by a glass stamping machine.

PIPETTES.

Many farmers and some ice cream manufacturers and one creamery were found to be using a pipette instead of a scale and weight, to weigh out their cream. We made some experiments and found that the varying weights of cream were caused by the difference in weight of high test cream and lowest cream. We had F. R. French of the Cottage Creamery at Lansing measure twelve 18 gram samples with a pipette. The highest sample weighed on the balance 17.4666 and the lowest 17.0989. The average was 17.282, the error being Minus .718 grams or 3.99%. The error on 10,000 pounds was 399 pounds. At 25c a pound, the loss to the patrons would be \$99.75. Our experiments clearly showed that to accurately find the amount of butter fat in cream, the pipette should not be used.

Table showing the difference in Percentage of Butter Fat by Measuring Cream with an 18 c.c. Pipette—Compared with Weighing sample upon Cream Balance.

BY W. C. GEAGLEY.

	Per cent butter fat by weight on balance.	Per cent butter fat by measure (18 c. c. Pipette.)	Difference. Per cent.	Actual weight of cream found by using 18 c. c. Pipette. Grams.
Cream No. 1:				
I.....	14.60	14.74	.14	18.1698
II.....	14.60	14.76	.16	18.1915
III.....	14.60	14.76	.16	18.2027
IV.....	14.60	14.76	.16	18.2052
V.....	14.60	14.79	.19	18.2318
Average.....	14.60	14.76	.16	18.2002
Cream No. 2:				
I.....	19.50	19.53	.03	18.0250
II.....	19.50	19.51	.01	18.0003
III.....	19.50	19.49	.01	17.9846
IV.....	19.50	19.47	.03	17.9669
V.....	19.50	19.59	.09	18.0766
Average.....	19.50	19.51	.03	18.0106
Cream No. 3:				
I.....	30.70	30.07	.63	17.6349
II.....	30.70	29.90	.80	17.5401
III.....	30.70	30.03	.67	17.6106
IV.....	30.70	29.98	.72	17.5851
V.....	30.70	30.11	.59	17.6553
Average.....	30.70	30.01	.68	17.6052
Cream No. 4:				
I.....	35.10	33.47	1.63	17.1668
II.....	35.10	33.46	1.64	17.1605
III.....	35.10	33.40	1.70	17.1298
IV.....	35.10	33.20	1.90	17.0259
V.....	35.10	33.07	2.03	16.9902
Average.....	35.10	33.32	1.76	17.0946
Cream No. 5:				
I.....	40.2	38.27	1.93	17.1385
II.....	40.2	38.04	2.16	17.0372
III.....	40.2	37.74	2.46	16.8996
IV.....	40.2	37.63	2.57	16.8254
Average.....	40.2	37.92	2.28	16.9751

	Per cent butter fat by weight on balance.	Per cent butter fat by measure (18 c. c. Pipette).	Difference. Per cent.	Actual weight of cream found by using 18 c. c. Pipette. Grams.
Cream No. 6:				
I.....	51.10	47.46	3.64	16.7182
II.....	51.10	47.30	3.80	16.6824
III.....	51.10	47.50	3.70	16.7343
IV.....	51.10	47.48	3.62	16.7281
V.....	51.10	48.04	3.06	16.9239
Average.....	51.10	47.54	3.56	16.7534
Cream No. 7:				
I.....	52.90	48.93	3.97	16.6503
II.....	52.90	48.64	4.26	16.5517
III.....	52.90	48.45	4.45	16.4884
IV.....	52.90	48.79	4.11	16.6029
V.....	52.90	48.83	4.07	16.6163
Average.....	52.90	48.73	4.14	16.5819
Cream No. 8:				
I.....	62.00	56.87	5.13	16.5132
II.....	62.00	56.81	5.19	16.4942
III.....	62.00	56.75	5.25	16.4778
IV.....	62.00	56.33	5.67	16.3566
V.....	62.00	56.50	5.50	16.4038
Average.....	62.00	56.65	5.35	16.4491
Cream No. 9:				
I.....	65.00	58.29	6.71	16.1440
II.....	65.00	58.75	6.25	16.2723
III.....	65.00	58.91	6.09	16.3160
IV.....	65.00	59.14	5.86	16.3785
V.....	65.00	59.20	5.80	16.3952
Average.....	65.00	58.86	6.14	16.3012

RE-WEIGHING.

The largest part of the work of the county and city sealers is the re-weighing and measuring of commodities sold and offered for sale in package form and in open packages. I have read estimates of the total amount saved to the people by the work of other inspectors, but I do not believe that it can be accurately estimated? The increasing cost of commodities also increases the temptation to short weigh or measure, and unless that is regulated by inspection, a chaotic condition would exist which would make it very hard to transact business.

The department is measuring paints in the can and we find that over 50% of the manufacturers are placing short measure in the small cans.

Dealers should invite inspection for many reasons. One is, that by so doing, they create a confidence in the trade by the public, especially when dealing with dealers with whom they are not acquainted or when ordered by phone. In case they are shortweighed, there is an official to whom they can appeal to secure their rights. Some dealers, when competition is close, cut their prices and then short-weight or measure. This makes the hardest kind of competition as the average consumer does not take the trouble to re-weigh or measure. Dealers should realize that inspection by the Weights and Measures Inspectors is the best regulator of unjust competition.

We have found in testing scales that as many overweigh as underweigh. Therefore, as many work against the dealer as against the consumer. As the profit on many commodities is very small, it is very easy for the dealer unknowingly to give away most of it, if his scales are over-weighing. Many dealers are careless in putting up packages. In such cases we rectify the short weight immediately.

The scope of the work of the Weights and Measures Division is almost unlimited and a great many dealers do not realize that the law has jurisdiction over them. Nearly every commodity sold is sold by some form or weight or measure.

NEW LAWS.

While we asked for the passage of a number of laws at the last session of the legislature, only two were passed,—a milk bottle law, placing milk bottle manufacturers under the jurisdiction of this department to insure the bottles being made so as to contain full measure and the Babcock Cream Test Law was amended, thereby making it one of the best laws in any state of the Union.

On July 6th, 7th and 8th a Weights and Measures Convention was held in the city of Detroit and was attended by a majority of the sealers. I have found the city and county sealers to be vigilant and good workers and eager to learn their duty. From time to time this Department has issued bulletins instructing them in some special work and our inspectors are constantly visiting the sealers to help them in their work.

The following table show the number of weights and measures condemned by all of the sealers of the state including the state, county

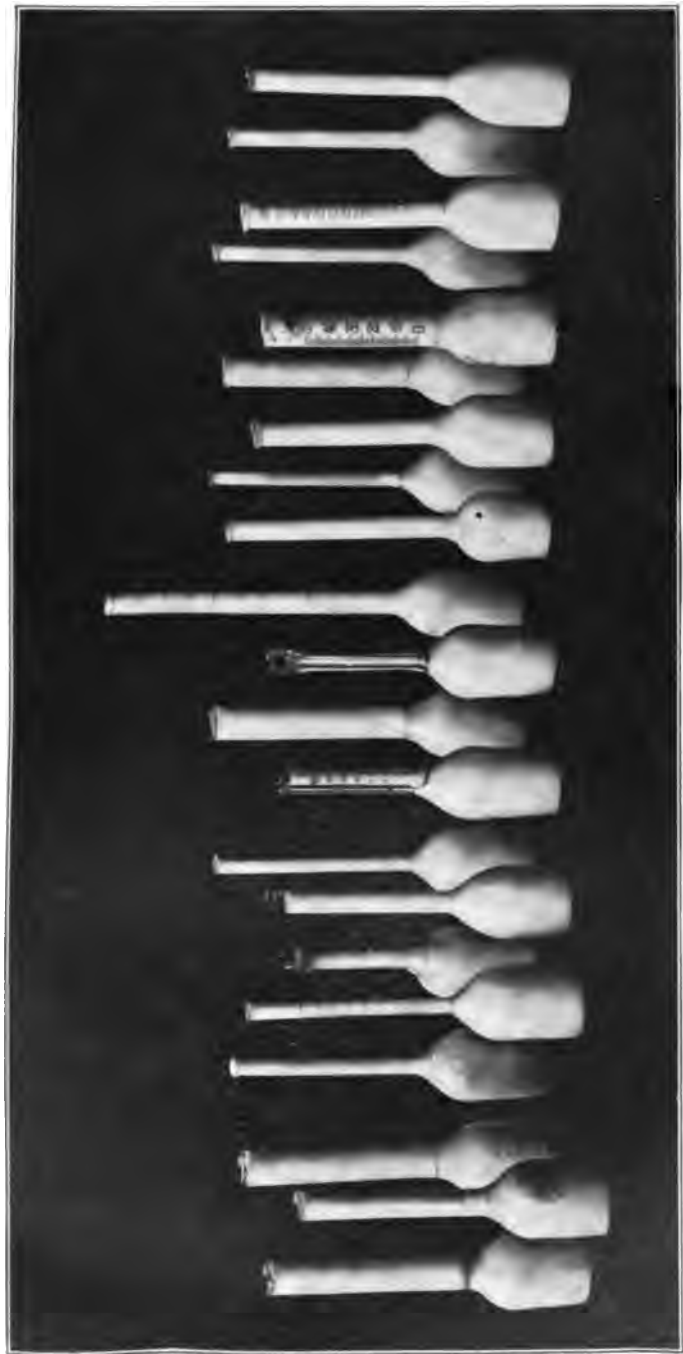


Plate VI.—A few of many types of cream test and milk bottles in use in the State before the law was changed.



Plate VII.—The two nine gram 50 per cent cream test bottles and the eight per cent milk bottle made standards by the new law note S. G. M. (Standard Glassware Michigan) branded on each bottle.

and city sealers, and the percentage condemned of the total number examined.

Table No. 2 shows the work of the Dairy and Food Department and table No. 3 the work of the city and county sealers.

TOTAL NUMBER EXAMINED AND PER CENT CONDEMNED.

	Correct.	Incorrect.	Total.	Per cent condemned.
Railroad Track Scales.....	40	21	61	34
Hopper Scales.....	509	55	564	9
Wagon Scales.....	787	357	1,144	31
Other Platform Scales.....	2,811	824	3,635	22
Suspension Scales.....	26	190	216	87
Counter Scales.....	3,365	1,017	4,382	23
Spring Balances.....	1,192	1,339	2,531	52
Beam Scales.....	487	254	741	34
Computing Scales.....	5,004	2,573	7,577	33
Slot Personal Scales.....	32	27	59	45
Totals.....	14,253	6,657	20,910	
Dry Measures.....	7,664	10,159	17,823	56
Liquid Measures.....	10,841	3,584	14,425	24
Milk Jars.....	2,036,477	47,533	2,084,010	2
Automatic Pumps.....	675	336	1,011	33
Baskets.....	2,229	1,082	3,311	32
Boxes.....	15,308	270	15,578	1
Totals.....	2,073,194	62,964	2,136,158	
Yard Sticks.....	852	141	993	14
Counter Measures.....	1,943	2,871	4,814	59
Tapes.....	4	421	425	99
Totals.....	2,799	3,433	6,232	
Weights.....	10,904	2,816	13,720	20

TOTAL NUMBER EXAMINED BY DAIRY AND FOOD DEPARTMENT WITH PER CENT CONDEMNED.

	Correct.	Incorrect.	Total.	Per cent condemned.
Railroad Track Scales	2	.....	2	.....
Hopper Scales	22	13	35	37
Wagon Scales	60	99	159	62
Other Platform Scales	124	154	278	55
Suspension Scales	8	65	73	89
Counter Scales	449	349	798	43
Spring Balances	25	489	514	95
Beam Scales	103	153	256	59
Computing Scales	737	848	1,585	53
Slot Personal Scales	8	3	11	27
Totals	1,538	2,173	3,711	.....
Dry Measures	660	7,033	7,693	91
Liquid Measures	289	1,520	1,809	84
Milk Jars	12	2	14	14
Automatic Pumps	14	11	25	44
Baskets .....	.....	.....	.....	.....
Boxes .....	.....	.....	.....	.....
Totals	975	8,566	9,541	.....
Yard Sticks	26	46	72	63
Counter Measures	590	2,351	2,941	79
Tapes .....	.....	76	76	100
Totals	616	2,473	3,089	.....
Weights	2,168	406	2,574	15

TOTAL NUMBER EXAMINED BY COUNTY AND CITY SEALERS AND PER CENT CONDEMNED.

	Correct.	Incorrect.	Total.	Per cent condemned.
Railroad Track Scales.....	38	21	59	35
Hopper Scales.....	487	42	529	7
Wagon Scales.....	727	258	985	26
Other Platform Scales.....	2,687	670	3,357	19
Suspension Scales.....	18	125	143	87
Counter Scales.....	2,916	668	3,584	18
Spring Balances.....	1,167	850	2,017	42
Beam Scales.....	384	101	485	20
Computing Scales.....	4,267	1,725	5,992	28
Slot Personal Scales.....	24	24	48	50
Totals.....	12,715	4,484	17,199	.....
Dry measures.....	7,004	3,126	10,130	30
Liquid Measures.....	10,552	2,064	12,616	16
Milk Jars.....	2,036,465	47,531	2,083,996	2
Automatic Pumps.....	661	325	986	32
Baskets.....	2,229	1,082	3,311	32
Boxes.....	15,308	270	15,578	1
Totals.....	2,072,219	54,398	2,126,617	.....
Yard Sticks.....	826	95	921	10
Counter Measures.....	1,353	520	1,873	27
Tapes.....	4	345	349	98
Totals.....	2,183	960	3,143	.....
Weights.....	8,736	2,410	11,146	21

SEALERS OF WEIGHTS AND MEASURES OF THE STATE OF MICHIGAN.

Walter W. Dean, Traverse City, Sealer Grand Traverse County.
 C. J. Wuellner, Menominee, Sealer Menominee County.
 Alvin A. Greer, Port Huron, Sealer St. Clair County.
 Howard B. Clark, Manchester, Sealer Washtenaw County.
 Pat Connors, Matchwood, Sealer Ontonagon County.
 R. G. Elliot, Munising, Sealer Alger County.
 John W. Tait, East Tawas, Sealer Iosco County.
 David H. Hawken, Gladwin, Sealer Gladwin County.
 Thos. M. Wells, Negaunee, Sealer Marquette County.
 Fred Dolecke, Charlotte, Sealer Eaton County.
 Wm. J. Schwalm, Bad Axe, Sealer Huron County.
 H. E. Maxson, Bay City, Sealer Bay County.
 George L. Smith, Sault Ste. Marie, Sealer Chippewa County.

D. Ward, Clare, Sealer Clare County.
F. J. Barnard, City Sealer, Battle Creek.
Jacob J. Baker, City Sealer, Muskegon.
Roy W. Ferris, Assistant City Sealer, Muskegon.
Randall Eberstein, City Sealer, Kalamazoo.
John H. Zehnder, County and City Sealer of Saginaw.
Lieutenant Geo. F. Austin, City Sealer, Detroit.
Arthur P. Rogers, City Sealer, Lansing.
Geo. Eldredge, City Sealer, Adrian.
E. J. Friar, City Sealer, Flint.
A. J. Finn, City Sealer, Cheboygan.
John J. Byrne, City Sealer, Grand Rapids.
Bert Van Nortwick, City Sealer, Greenville.
James Gavan, City Sealer, Ludington.
F. E. Conant, City Sealer, Belding.
Chas. J. B. McNally, City Sealer, Owosso.
J. B. Austin, City Sealer, Pontiac.
G. A. Osborn, City Sealer, Jackson.
Fred J. Miller, City Sealer, Alpena.
Frank Van Ry, Chief of Police, City Sealer, Holland.
Oliver H. Stevens, City Sealer, Albion.
Capt. J. W. Worden, Capt. of Police, City Sealer, Highland Park.

PROSECUTIONS.

One hundred sixty-eight prosecutions were instituted during the year by weights and measures officials which resulted in 147 convictions, 4 acquittals, 12 dismissals and 5 cases pending.

WEIGHTS AND MEASURES.

To the Sealers of Weights and Measures:

As the two Drug Inspectors of the Dairy and Food Department cannot cover all of Michigan in the matter of testing prescription weights and drug graduates, I would strongly urge you to get the following equipment as it will be needed:

One set of metric weights, 50 grams to 5 milligrams.

One 9 gram and one 18 gram weight.

One set of Apothecaries weights consisting of 12, 6, 2, 2; 1 ounce—4, 2; 1 drachms—2; 1 scruples—10, 5, 2, 1, 5/10, 2/10, 1/10 grains. This set can be used for the testing of Troy weights.

Sealer's Portable Pocket Balance, S-7384 without weights, manufactured by Henry Troemner, Philadelphia, is recommended.

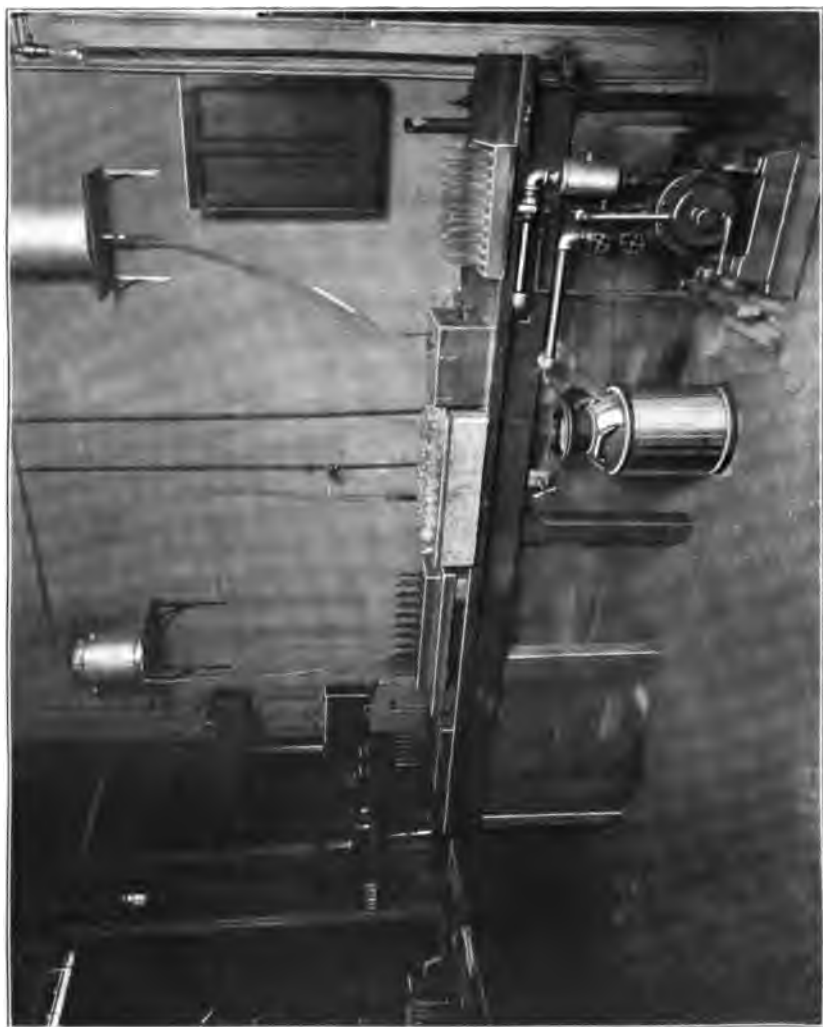


PLATE VIII.—The Department equipment for testing Babcock Glassware.

Set of graduates consisting of the following sizes: 60 M, 120 M, 1/2 oz., 1 oz., 2 oz., 4 oz., 8 oz., 16 oz. The graduates from 1 oz. up are to be cylindrical and not cone shaped.

Set of graduates consisting of the following sizes: 60 M.

The above should be ordered sent direct to this department for sealing.

The following tolerances will be adopted.

Weight, ounces troy.	Tolerances, grains.	Weight, scruples.	Tolerances, grains.
12	4.0	3	0.3
10	4.0	2	.3
8	3.0	1	.15
6	3.0	..	....
4	2.0	..	....
3	2.0	..	....
2	2.0	..	....
1	1.0	..	....
Weight, drachms.	Tolerances, grains.	Weight, grains.	Tolerances, grains.
8	1.0	20	.15
6	1.0	15	.15
4	.7	10	.10
3	.6	5	.08
2	.5	1	.03
1	.3	..	...

These values are tentative and will probably be slightly modified.

Weight, grams.	Tolerances, grams.	Weight, grams.	Tolerances, grams.
50	.05	.5	.001
20	.02	.2	.0005
10	.01	.1	.0002
5	.005	.05	.0001
2	.002	.02	.0001
1	.002	...	.....

Graduates.		Graduates.	
1 quart.....	1 1/2 dr.	1 liter.....	100 Minims.
1 pint.....	1 dr.	1/2 liter.....	60 Minims.
1/2 pint.....	30 Minims.	1/4 liter.....	30 Minims.
1/4 pint.....	15 M.	100 cc.....	12 Minims.
2 Fl. oz.....	9 M.	50 cc.....	6 Minims.
1 Fl. oz.....	6 M.	25 cc.....	4 Minims.
1/2 Fl. oz.....	3 M.	10 cc.....	2 Minims.
1 drachm.....	1 M.	5 cc.....	1 Minim.

Very truly,
BURR B. LINCOLN,
 Deputy Dairy and Food Commissioner,
 In Charge of Weights and Measures.

To the Sealers of Weights and Measures:

I have been investigating the range boiler proposition and find that they are the boilers used in the house. There is a great deal of fraud practiced in representing the size of these boilers. The boiler that seems to be used most is of thirty gallon capacity. A number of dealers have boilers of smaller capacity which they represent as being thirty gallon boilers.

This is a clear violation of the law, and I wish the Sealers would watch the sale of these boilers and see that correct capacity is given. You will find them on sale at the plumbers, and plumber's supply houses.

B. B. LINCOLN,
Deputy Dairy and Food Commissioner,
In Charge of Weights and Measures.

To the Creameries:

The "Net Weight Package Law" became effective August 14, 1913. This law provides that the Net Weight shall be stamped on the outside of each package of food. There is also a provision exempting package goods which were in the hands of wholesalers and retailers on January 1, 1914, but this did not apply to package goods put up after January 1st.

For instance, butter wrapped in cartons is in "package forms," and the law applies to it; but we find a large number of butter-makers are not complying with the law. This is to warn you to have the Net Weight stamped on your packages, as violators of this law will be vigorously prosecuted.

Yours truly,
B. B. LINCOLN,
Deputy Dairy and Food Commissioner,
In Charge of Weights and Measures.

To the Plumbers and Furnishers of Plumbing Supplies:

This Department has been investigating the size of range boilers and find that the size of a large number of these boilers is misrepresented. This is clearly a violation of the Weights and Measures Law of this state, and any plumber or person selling these boilers is liable to prosecution.

This letter is sent to you as a warning that the Dairy and Food Department will vigorously prosecute any plumber, furnisher of plumber's supplies, or dealer in range boilers, who sells a range boiler and represents the size as being of greater capacity than it really is.

B. B. LINCOLN,
Deputy Dairy and Food Commissioner,
In Charge of Weights and Measures.

Lansing, Mich., Sept. 25, 1914.

To the Board of Supervisors:

One year ago I called your attention to the fact that under Act No. 168, Public Acts of 1913, you had the authority to appoint a Sealer of Weights and Measures for your county. This notice was sent to the Boards of Supervisors of all the counties in the state and during the year the following counties appointed County Sealers: Washtenaw, Ontonagon, Grand Traverse, Alger, St. Clair, Bay, Alpena, Iosco, Menominee and Chippewa.

Under the Weights and Measures Law above referred to, this department's duty is to supervise the operations of County and City Sealers. While the department may test individual weights and measures through the state, it is not compelled to by law and it would be impossible for us to test all the weights and measures and scales in the state. That is clearly the duty of a local officer. Counties that have had County Sealers have received in the short time that they have had the law in operation, inestimable benefits. These sealers have found that something like 40% of the scales examined were incorrect and our investigations show that this condition undoubtedly prevails in every county in the state. When we consider the immense amount of money that is involved in all business transactions made through weights, measures and scales—when we consider the farmer sells his produce by weight or measure and nearly everything he buys he buys in the same manner, it would seem that the farmer member of the Board of Supervisors would see the vast advantage that would come to him in having just weights and measures.

I am therefore again calling your attention to this law and again asking your Board at its coming session to appoint a County Sealer of Weights and Measures. The law provides that if deemed advisable you may appoint your County Sealer with the City Sealer in your County if there is one. It also provides that two or more counties may join in appointing a county sealer. The equipment necessary for a sealer does not exceed \$300 and many counties have a partial equipment on hand. In many counties a Deputy Sheriff or other officer whose time is not fully engaged, may be made County Sealer at a small salary. I trust that at the coming session your county will take action and place yours in line with the counties above mentioned.

JAMES W. HELME,
State Dairy and Food Commissioner,
Ex Officio Supt. Weights and Measures.

ADDRESS OF DEPUTY COMMISSIONER B. B. LINCOLN, BEFORE LEAGUE OF MICHIGAN MUNICIPALITIES AT ALPENA.

Mr. Chairman and Gentlemen:

You are to be congratulated that you have the foresight and patriotism to hold a conference of this kind. You, as officials of your cities, have a great responsibility, realized when you think that all our lives, from birth to death, are regulated by law, that all our public utilities

and institutions are regulated by law and as our population increases, more laws and regulations are necessary.

You, because of your office, have power both to make and enforce regulations, and as the people have honored you with this trust, you should study to be efficient. A conference of this kind should aid you greatly in your work.

My subject is "City Weights and Measures Inspectors." As I am in charge of the weights and measures of Michigan, I am constantly coming in contact with the local officials and the conditions that exist.

I want to especially call your attention to the necessity for city sealers of weights and measures for I am constantly receiving requests from Mayors to test out the scales of their cities. As the appropriation of our department is very small—only \$35,000—and we have a great many things to look after, we cannot have more than two or three men who devote their time exclusively to this particular branch. The fact that Detroit has a force of four or five who are "on the job" all the time, and then find it impossible to do all the work, is proof of the necessity of city and county sealers to protect the buying public.

Many people think that when a scale is in balance at zero it is correct, while the fact is that though a scale may be in balance all right, yet it may weigh incorrectly. Sealers adjust or condemn over 50% of the scales which they are testing for the first time. Even the highest-priced computing scales will sometimes need adjustment for they get out of order and weigh either "fast" or "slow." Some stores persist in using cheap spring scales which, if they ever did weigh correctly, quickly get out of order.

In order to contain a peck or half bushel of potatoes, measures must be of a certain diameter. When our department first took up this work, we found that over fifty per cent of the measures which would hold a peck or half bushel of wheat or other grain, would not hold a peck or a half-bushel of potatoes, because the diameter was not sufficient to allow heaping for the proper weight. I have found wagon scales over 200 lbs. to the ton wrong, and the men selling coal over them entirely ignorant of the fact.

Berry boxes do not always hold a quart. Unfortunately, the right of contract prevails and these short measures may be sold as "boxes" and the buyer is the loser. Milk bottles are often short, often are not filled. Package goods are sold which have no weight or measure stamped upon them. All of these things need constant supervision and watchfulness. Your cities hire policemen to protect people from pickpockets, thugs, etc. The loss in that way is small compared to what the people lose every day from short weight and measures. For the protection of the consumer's pocketbook, a good, wide-awake, weights and measures official is necessary.

Furthermore, the man in business needs the protection of a sealer. For instance, when potatoes are high, a dealer may sell 12 lbs. for a peck and cut his price. The honest merchant either has to become dishonest and do likewise or lose his trade. I have found pecks of potatoes weighing $10\frac{1}{2}$ lbs. selling for less than the merchant paid for them wholesale. I have found this price-cutting in other commodities,

some selling for less than cost, but which, when bought, proved to be either short weight or short measure enough so that the dealer was at least getting cost price. As an illustration, a hardware dealer in Lansing advertised as a leader in a daily paper, "Linseed Oil for 64c a gallon," when it was 72c wholesale. Upon buying a gallon, I got seven pints, so he made one cent on the deal. However, his plea of guilty in the courts cost him \$20. We must remember that there are no bargains in food stuffs, they are worth the market price. Competition is so keen that the honest merchant needs protection from his competitor who makes low prices and shortens upon the quantity of his goods. If only from the standpoint of good business policy, it is well to have certain recognized standards—such as 60 lbs. for a bushel of potatoes, 4 quarts to the gallon, 16 ounces to the pound, etc., to which all merchants adhere, and this will gain the confidence of the people. One merchant in a city, who advertises extensively and short weighs, can make trouble for all the other merchants. It is to prevent such circumstances that a sealer is needed.

Then again, a merchant's scale may be, unknown to him, weighing "slow," and he may be giving away good interest on the money invested in his business. For instance, two weeks ago, I went into a store in Bay City, where a merchant, not knowing how to balance his scales, was giving away two or three cents on the dollar every time he weighed. The county sealer and I showed him how to regulate his scale and this meant a great saving to him.

In going over the sugar beet scales a year ago last fall, I found 62½% wrong, as many giving overweight as underweight, so here again, you see it is to the advantage of the dealer to have his scales tested as they may be short weighing and he be ignorant of it. The business life of a dealer who sells his commodities over scales depends upon accurate weight, neither overweighing or short weighing. If he gives too much, he loses, for competition is so keen and prices are so close in nearly all lines of business that he cannot afford this. If he shortweighs, the public is sure to find it out in time and its confidence in him is gone.

When considering weights and measures ordinances, don't consider the fee system. In talking with officials of other states I find that it is very unsatisfactory wherever used; the dealer doesn't like it. As one expressed it, when Detroit worked under the fee system, he could look up almost any time and see a sealer coming to take a dollar out of his pocket. The sealer has trouble enough without having people wonder whether that fee goes to him or the city treasury. He protects the public enough to justify the city in paying him out of its treasury. Again, there are certain scales which are more easily thrown out of adjustment than others and consequently must be tested oftener and this leads to hard feelings if a fee is charged.

In making your ordinances, it's a good thing to put in a clause revoking the license of any huckster or peddler who is convicted of short-weight or measure. Another suggestion—cities can consolidate with their counties in appointing sealers, and so afford more efficient men. Saginaw, Bay City and Port Huron all have made such arrangements so that their sealers are paid by both city and county.

In appointing a sealer, get a wide-awake young man who will make good, for he must stand much criticism and have plenty of hard work. Then when you have a good one, don't remove him at every change of administration. Don't give the work to some officer, such as bicycle cop or dog catcher, as a side issue—he will forget it. This work is worthy the entire time of any man.

The work of our department is the instruction of new sealers in their work, seeing that there is a uniform enforcement of the law among the old sealers, issuing instructions as to which scales and measures are to be condemned or approved, and the helping of sealers out of difficulties.

The weights and measures law went into effect August 15, 1913. There was considerable delay in starting its enforcement, but today, Michigan is regarded as one of the leading states in this respect, and all it lacks to place it in the foremost rank is a greater number of county and city sealers. If your city has not already one, for the protection of your people, go home and work for one. The Good Book tells us that "false weights are an abomination to the Lord."

BURR B. LINCOLN,
Deputy Dairy and Food Commissioner.



PLATE X.—Half bushel measure, State standard for 40 years, turned over to Dairy and Food Commissioner by State Treasurer in 1913 on enactment of present law. The Bureau of Standards at Washington found it short and refused to seal it.

SCALES EXAMINED DURING THE MONTHS OF JULY AND AUGUST, 1914.

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
George Graham	Athens			2
Farmers Mercantile Co.	Buckley			2
C. L. Merithew	Buckley			2
J. I. Purdy & Co.	Buckley		1	1
W. W. Smith & Sons	Buckley			1
Baes Bros.	Dollar Bay		1	
Matt Jurmu	Dollar Bay	1		
John Marshall	Dollar Bay		1	
A. N. Schulte	Dollar Bay	3		
J. C. Foster	Engadine		1	
Julius Larson	Engadine		2	
A. DeBoer	Grand Rapids		1	
T. DeBoer	Grand Rapids		1	
Peter Dekker	Grand Rapids		1	
Joe De Pree	Grand Rapids		1	
Peter DeVries	Grand Rapids		1	
Martin Dreece	Grand Rapids		1	
Leit Dorge	Grand Rapids		1	
Anton Gagi	Grand Rapids		1	
D. Gagi	Grand Rapids		1	
D. Goldberg	Grand Rapids		1	
B. Kinkema	Grand Rapids		1	
J. Kopma	Grand Rapids		1	
G. Linquist	Grand Rapids		1	
J. Linski	Grand Rapids		1	
A. Ludwig	Grand Rapids		1	
J. Ludwig	Grand Rapids		1	
B. Omant	Grand Rapids		1	
F. Petsoi	Grand Rapids		1	
T. Senpoi	Grand Rapids		1	
A. D. Smith	Grand Rapids		1	
John Taylor	Grand Rapids		1	
B. Thomasma	Grand Rapids		1	
B. Turpetra	Grand Rapids		1	
A. VonDam	Grand Rapids		1	
H. VonDenBerg	Grand Rapids		1	
M. Veena	Grand Rapids		1	
E. Veenstra	Grand Rapids		1	
Frank Koopelle	Hannah		1	
C. W. Atkin	Houghton	1		
Wm. Gamble	Houghton		1	
Houghton Pure Food	Houghton	4	2	
L. Krellwitz	Houghton	2	1	
W. S. McVicker	Houghton	1		
Peoples Meat Market	Houghton	3		
Geo. Grammes	Hubbell	3		
Edward H. Hebert	Hubbell		1	
Jno. B. Hodges	Hubbell	3		
Alf. A. Krueger	Hubbell	3		
Henry Opal	Hubbell	1		
N. Reading	Hubbell	1		
C. A. Baker	Lake Odessa		1	
A. Pond	Mackinac Island		1	
Consolidated Lumber Co.	Manistique		1	
John C. Folk	Manistique		1	
Wm. L. Middlebrook	Manistique		1	
Frank Peterson & Co.	Manistique		1	
C. J. Anderson	Marquette		1	
Anderson & Mellin	Marquette		1	
E. Bertrand	Marquette	1		
F. E. Bracher	Marquette	3	1	
F. Bureau & Son	Marquette	3	1	
A. Cameron	Marquette	1		
Jno. Carlson	Marquette	1	1	
Delf Grocery	Marquette	3		

SCALES EXAMINED DURING THE MONTHS OF JULY AND AUGUST, 1914.—*Concluded.*

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
Chas. Dorais.....	Marquette.....		2	
C. G. Eck.....	Marquette.....	1	2	
Fassbender & Pierce.....	Marquette.....		2	
A. Fein.....	Marquette.....		1	
Gannon Grocery Co.....	Marquette.....	2		
Frank La Bonte.....	Marquette.....	4		1
Wm. Lewinstein.....	Marquette.....		2	
Lewinstein & Wasserman.....	Marquette.....	1	1	
Jno. Q. Lewis & Co.....	Marquette.....	2	2	
Russell Morin.....	Marquette.....	1		
Murray Grocery.....	Marquette.....	8		
W. J. O'Donnell.....	Marquette.....	1		
Reany & McLean.....	Marquette.....	1		
Rydholm Bros.....	Marquette.....	2		
Jno. Seigel.....	Marquette.....	4		
Jacob Smith.....	Marquette.....	1		
Mike Wallin.....	Marquette.....	1	1	
Wm. Williams.....	Marquette.....		2	
Ford & Williamson.....	Marshall.....			1
C. Snearley.....	Marshall.....			1
Mason Elevator Co.....	Mason.....		1	
R. B. Rayner.....	Mason.....	2		
J. P. Smith.....	Mason.....		1	
S. C. Wagner.....	Onaway.....		1	
Chicago Market.....	St. Ignace.....		1	
Geo. Furstch.....	Wexford.....			1

MEASURES EXAMINED DURING THE MONTHS OF JULY AND AUGUST, 1914.

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
Wm. A. Anderson.....	Angell.....		2	
Lewis & Ulrich.....	Athens.....		36	
L. J. Crisp.....	Bates.....		1	
A. Z. Green.....	Bates.....		2	
Batchelor & Brown.....	Belding.....		5	
Farmers Mercantile Co.....	Buckley.....		6	
C. L. Merithew.....	Buckley.....		3	
W. W. Smith & Sons.....	Buckley.....		10	
H. P. Hossack.....	Cedarville.....		1	
E. J. Forshee.....	Conway.....		6	
James Long.....	Conway.....		1	
Ira Barant.....	Detroit.....		5	
Sam Goodman.....	Detroit.....		5	
Jacob Laftin.....	Detroit.....		5	
Lewis Laftin.....	Detroit.....		5	
C. F. Smith.....	Detroit.....		5	
A. F. Webber.....	Detroit.....		5	
Jake Wengell.....	Detroit.....		5	
Bates Bros.....	Dollar Bay.....	1		
Matt Jurmi.....	Dollar Bay.....		1	1
A. M. Schulte & Co.....	Dollar Bay.....	5		
H. Alpern.....	Elk Rapids.....		8	
D. M. Clark.....	Elk Rapids.....		7	
A. Goldfarb.....	Elk Rapids.....		15	
L. Hoffman.....	Elk Rapids.....		3	
T. J. Hogan.....	Elk Rapids.....		3	
Towers & Cole Bros.....	Elk Rapids.....		6	
C. W. Bretz.....	Engadine.....		2	
Freeman Lumber Co.....	Engadine.....		17	
Segal Dept. Store.....	Harbor Springs.....		14	
A. N. Smith & Son.....	Harbor Springs.....		3	
J. T. Starr & Co.....	Harbor Springs.....		2	
A. G. Wellbrook.....	Harbor Springs.....		4	
Jos. Warnock.....	Harbor Springs.....		23	
Michael Fenlon.....	Hessel.....		8	
Fenlon Bros.....	Hessel.....		14	
Peoples Meat Market.....	Houghton.....	1		
Henry Opal.....	Hubbell.....	2		
N. Reding.....	Hubbell.....	2		
Kaleva Mercantile Co.....	Kaleva.....		7	
Louis Morris.....	Kingsley.....		3	
O. A. Lappo.....	Lake Odessa.....		3	
W. H. McCartney.....	Lake Odessa.....		2	
J. E. Peacock.....	Lake Odessa.....		3	
Jay S. Schmidt.....	Lake Odessa.....		1	
Fred Urtell.....	Lake Odessa.....		1	
B. Barster.....	Mackinac Island.....		7	
J. W. Davis & Sons.....	Mackinac Island.....		15	
Doud Mercantile Co.....	Mackinac Island.....		5	
D. Murray.....	Mackinac Island.....		2	
Geo. Truscott.....	Mackinac Island.....		4	
Blumrosen & Co.....	Manistique.....		35	
John O. Folk.....	Manistique.....		2	
W. L. Middlebrook.....	Manistique.....		7	
Moses Winkelman.....	Manistique.....		16	
Delf's Grocery.....	Marquette.....	7		
C. G. Eck.....	Marquette.....	1		
Frank LaBonte.....	Marquette.....	12		
Russell Morin.....	Marquette.....	4		
Murray Grocery.....	Marquette.....	5		
John Siegel.....	Marquette.....	3		
Jacob Smith.....	Marquette.....	4		
P. D. Lille.....	Oden.....		3	
Volney Powell.....	Oden.....		3	
J. Barnett.....	Onaway.....		12	

STATE OF MICHIGAN.

MEASURES EXAMINED DURING THE MONTHS OF JULY AND AUGUST, 1914.—*Concluded.*

Name of firm.	Location.	Sealed.	Con-demned.	Adjusted.
Jacob Berlin.....	Onaway.....	.....	1	.....
A. Dosey.....	Onaway.....	.....	2	.....
Levandowski & McEvoy.....	Onaway.....	.....	2	.....
J. L. Righ.....	Onaway.....	.....	2	.....
A. E. Stark.....	Onaway.....	.....	1	.....
Devine & Sage.....	Pellston.....	.....	3	.....
Jackson & Tilden.....	Pellston.....	.....	26	.....
F. E. Leonhard.....	Pellston.....	.....	3	.....
Tom Obloy.....	Pellston.....	.....	3	.....
Pellston Mercantile Co.....	Pellston.....	.....	8	.....
W. H. Iden.....	Petokey.....	.....	2	.....
R. Ingalls.....	Petokey.....	.....	2	.....
Martin & Home.....	Petokey.....	.....	3	.....
A. B. Thompson.....	Petokey.....	.....	1	.....
S. A. Williams.....	Petokey.....	.....	3	.....
L. E. Bahle & Son.....	Suttons Bay.....	.....	8	.....
L. R. Sogge.....	Suttons Bay.....	.....	4	.....
E. M. Crannell.....	Tower.....	.....	3	.....
H. A. Feahr.....	Tower.....	.....	6	.....
P. M. Furlong.....	Trout Lake.....	.....	5	.....
C. W. Logan.....	Trout Lake.....	.....	4	.....
G. M. Smith & Co.....	Trout Lake.....	.....	5	.....
C. Bear.....	Walloon Lake.....	.....	5	.....
A. J. Crago.....	Waloon Lake.....	.....	5	.....
W. H. Ransom.....	Walloon Lake.....	.....	5	.....
D. W. Connine & Son.....	Wexford.....	.....	6	.....
Geo. Furstch.....	Wexford.....	.....	7	.....

WEIGHTS EXAMINED DURING THE MONTHS OF JULY AND AUGUST, 1914.

Name of firm.	Location.	Sealed.	Con-demned.	Adjusted.
A. M. Schulte & Co.....	Dollar Bay.....	5	.....	.....
Houghton Pure Food Co.....	Houghton.....	16	.....	.....
Geo. Grammes.....	Hubbell.....	8	.....	.....
John B. Hodges.....	Hubbell.....	8	.....	.....
Alf. A. Krueger.....	Hubbell.....	8	.....	.....
Henry Opal.....	Hubbell.....	5	.....	.....
N. Reding.....	Hubbell.....	6	.....	.....
E. E. Bracher.....	Marquette.....	6	.....	.....
Jno. Carlson.....	Marquette.....	5	.....	.....
Delf's Grocery.....	Marquette.....	7	.....	.....
C. G. Eck.....	Marquette.....	3	.....	.....
Frank La Bonte.....	Marquette.....	6	.....	.....
Lewistein & Wasserman.....	Marquette.....	4	.....	1
Murray Grocery.....	Marquette.....	33	.....	.....
W. J. O'Donnell.....	Marquette.....	4	.....	.....
Rydholm Bros.....	Marquette.....	4	.....	.....

SCALES EXAMINED DURING THE MONTHS OF SEPTEMBER AND OCTOBER, 1914.

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
Martin Chopp	Ahmeek	1	1	
Glass Bros.	Ahmeek	1	1	
J. A. Hamilton	Ahmeek	1		
Morgan & Grierson	Ahmeek		2	
E. C. Carrington	Albion	1		
Frank E. Clark	Albion	5	1	
Howard Meat Co.	Albion		1	
Talmadge & Bauer	Albion	2		
Wochholz & Gress	Albion	1	1	
J. P. Peterman	Allouez	1	1	
Bert. Eckert	Alma		1	
Ed. Beney	Bellaire		2	
Wm. N. Nutt	Bellaire		3	
E. J. Potter	Bellaire		1	
John R. Bennett	Copper City	1		
Erlandson Bros.	Copper City	1		
Aug. Kohn	Copper City	1		
Wm. Stimac	Copper City	1	1	
E. Sassin	Detroit			1
A. Weise	Detroit		1	
Geo. W. Winget	Ithaca		1	
A. Hughes	Jackson		1	
Wm. Maxwell	Kalamazoo		1	
J. C. Dent	Lapeer		2	
A. Barsanti	Laurium	1		
Cloutier Bros. & Co.	Laurium	1		
A. Elster	Laurium	1		
Kerman Ervasti	Laurium	1		
John K. Finlayson	Laurium	1		
James Galletero	Laurium	1		
Gourd Bros.	Laurium		1	
Italian Cooperative Co.	Laurium	1		
F. H. Lantz & Co.	Laurium	1	1	
Simon Lefebore	Laurium	2		
Bat Marta	Laurium		1	
Nels Nelson	Laurium		1	
Niemela & Sons	Laurium	2	1	
Jos. Pawlicki	Laurium	1		
W. J. Reynolds	Laurium	1	1	
C. W. Ryckman	Laurium	2	1	
Salicetti & Carbonatti	Laurium	2		
Chas. Salotti	Laurium	1		
Mat Samida	Laurium	1		
Schnellar & Co.	Laurium	2		
John E. Standell	Laurium	2		
Joseph Swykert	Laurium	3		
Paul Pinetti	Laurium	1		
Jacob Torkkola	Laurium	1		
James Torreano	Laurium		1	
Johnson Vivian, Jr. & Co.	Laurium	4		
Johnson Vivian, Jr. & Co.	Laurium	1		
E. S. White	Laurium	1		
Mason Elevator Co.	Mason		1	
J. P. Smith	Mason		1	
Philips & Son	Millford		1	
Foley Bros.	Mohawk	2		
Peterman Stores Co., Inc.	Mohawk	3		
Burns & Shampline	Munising		1	
Munising Leather Co.	Munising		1	
Harper Bros.	Muskegon		3	
L. A. Barnes	Northport		1	
W. F. Gill	Northport		1	
John Bros.	Northport		2	
Kehl Bros.	Northport		2	
D. H. Scott	Northport		1	

SCALES EXAMINED DURING THE MONTHS OF SEPTEMBER AND OCTOBER, 1914.—
Concluded.

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
John E. Anderson.....	Norway.....	.....	2	.....
A. Erspamer.....	Norway.....	.....	2	.....
Mrs. F. Heyden.....	Norway.....	.....	1	.....
Frank Meyer.....	Norway.....	.....	1	.....
J. C. Wickstrom.....	Norway.....	.....	1	.....
Michigan Sugar Co.....	Omer.....	1	.....	.....
Omer Mill & Elevator Co.....	Omer.....	2	.....	1
G. T. Greene.....	Oxford.....	.....	1	.....
Chas. Burroughs.....	Traverse City.....	.....	1	.....
Emil Buck.....	Traverse City.....	.....	1	.....
W. H. Darrow.....	Traverse City.....	.....	1	.....
O. Marinelli.....	Vulcan.....	.....	2	.....

MEASURES EXAMINED DURING THE MONTHS OF SEPTEMBER AND OCTOBER, 1914.

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
Morgan & Grierson.....	Ahmeek.....	4	.....	.....
E. C. Carrington.....	Albion.....	.....	3	.....
Frank E. Clark.....	Albion.....	.....	6	.....
Wochholz & Gress.....	Albion.....	.....	5	.....
J. P. Peterman.....	Allouez.....	2	2	.....
L. N. Baker.....	Alma.....	.....	4	.....
B. W. Ellison.....	Alma.....	.....	5	.....
Miller Bros.....	Alma.....	.....	2	.....
F. J. Patee.....	Alma.....	.....	2	.....
L. E. Rether.....	Alma.....	.....	2	.....
Otto Sanderhoff.....	Alma.....	.....	5	.....
Bay Shore Mercantile Co.....	Bay Shore.....	.....	4	.....
Albert Bath.....	Detroit.....	.....	4	.....
Louis Bickend.....	Detroit.....	.....	1	.....
Wm. Boyd.....	Detroit.....	.....	4	.....
Aug. Brandish.....	Detroit.....	.....	3	.....
M. W. & J. Dinam.....	Detroit.....	.....	2	.....
Eastern Market.....	Detroit.....	.....	350	.....
Franks & Briggs.....	Detroit.....	.....	4	.....
John Gilbert.....	Detroit.....	.....	2	.....
D. M. Linehan.....	Detroit.....	.....	5	.....
J. T. McGrogan.....	Detroit.....	.....	6	.....
Ed. Neumann & Co.....	Detroit.....	.....	7	.....
Tony Orlando.....	Detroit.....	.....	3	.....
K. W. Raleigh.....	Detroit.....	.....	5	.....
E. Sassin.....	Detroit.....	.....	5	.....
Carl Schmidt.....	Detroit.....	.....	5	.....
E. Seligman.....	Detroit.....	.....	2	.....
Max Simons.....	Detroit.....	.....	4	.....
L. P. Sweetwine.....	Detroit.....	.....	4	.....
Elsdore Vineyard.....	Detroit.....	.....	1	.....
Western Market.....	Detroit.....	.....	100	.....
C. E. Baugman.....	Dowagiac.....	.....	4	.....
Bonnell & Harter.....	Dowagiac.....	2	4	.....
R. E. Morse.....	Dowagiac.....	1	2	.....
Pugsley & Squires.....	Dowagiac.....	1	2	.....
Lee M. Ransbottom.....	Dowagiac.....	.....	1	.....
Boyd Redner & Son.....	Dowagiac.....	.....	4	.....
Smith & Carlisle.....	Dowagiac.....	.....	3	.....
T. F. Welsh.....	Dowagiac.....	.....	3	.....
P. T. Hull.....	East Tawas.....	.....	1	.....
H. E. Lewis.....	Ithaca.....	.....	7	.....
Henry McCormick.....	Ithaca.....	.....	2	.....
A. E. Pirney.....	Ithaca.....	.....	7	.....
James Rigney.....	Ithaca.....	.....	2	.....

MEASURES EXAMINED DURING THE MONTHS OF SEPTEMBER AND OCTOBER, 1914.
—Concluded.

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
Yost & Hamilton	Ithaca		1	
B. G. Champlin & Son	Jackson		3	
Geo. Conger	Jackson		4	
Geo. S. Cruger	Jackson		2	
F. L. Hopkins	Jackson		1	
Geo. McCann	Jackson		6	
Mm. Maxwell (Water St.)	Kalamazoo		4	
Wm. Maxwell (Burdick St.)	Kalamazoo		3	
A. Barsanti	Laurium		1	
A. Elster	Laurium	3		
John K. Finlayson	Laurium	3		
Italian Cooperative Co	Laurium	1	1	
Simon Lefebore	Laurium	1		
C. W. Ryckman	Laurium	2		
Chas. Salotti	Laurium	1		
John E. Standell	Laurium		1	
Jacob Torkkols	Laurium	2	2	
Johnson Vivian, Jr. & Co	Laurium	5		
Hasper Bros	Muskegon		3	
Champion Bros	Niles	1	5	
D. H. Dembury	Niles		3	
Hendershott & Pears	Niles		3	
H. B. Laberteaux	Niles		5	
Moore Grocery Co	Niles		2	
Schmidt Meat Co	Niles	1	5	
John Soule	Niles		2	
Lyman & Walsh	Niles		4	
E. E. Woodford	Niles		10	
Orville S. Young	Niles		6	
W. H. Darrow	Traverse City		1	

WEIGHTS EXAMINED DURING THE MONTHS OF SEPTEMBER AND OCTOBER, 1914.

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
J. A. Hamilton	Ahmeek	5		
John R. Bennett	Copper City	2		
Aug. Kohn	Copper City	6		
John Galletero	Laurium	4		
Joseph Pawliski	Laurium	4		
Mat Samida	Laurium	6		
John E. Strandell	Laurium	10		
Jos. Swykert	Laurium	4		
Johnson Vivian, Jr. & Co	Laurium	14		
Johnson Vivian, Jr. & Co	Laurium	3		
E. S. White	Laurium	3		
Omer Mill & Elevator Co	Omer	5		

YARD STICKS, COUNTER MEASURES, AND TAPES—SEPTEMBER AND OCTOBER, 1914.

Name of firm.	Location.	Correct.	Incorrect.	Adjusted.
Bay Shore Merc. Co	Bay Shore		3 yard sticks	
A. E. Frank	Bellaire		6 counter measures	
A. E. Goldstuck	Bellaire		7 tapes & measures	
Johnson Vivian, Jr. & Co	Laurium		4 measures	4

SCALES EXAMINED DURING THE MONTHS OF NOVEMBER AND DECEMBER, 1914.

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
Morgan & Grierson.....	Ahmeek.....	1		
Morgan & Grierson.....	Ahmeek.....	1		1
Jake Effinger.....	Allouez.....	1		
Peterman Stores Co., Inc.....	Allouez.....	1		1
J. Walter & Son.....	Alpena.....		1	
Hickey & Hogle.....	Alpena.....		1	
Joseph Giamone.....	Alpena.....		2	
I. Cohn.....	Alpena.....		1	
A. Maglioncalda.....	Ann Arbor.....		1	1
Joseph Livernols.....	Ann Arbor.....			1
Keyer & Whitker.....	Ann Arbor.....			3
W. H. Gregory.....	Ann Arbor.....			1
Wm. Goetz & Son.....	Ann Arbor.....			2
Geo. Gelsenforfer.....	Ann Arbor.....			3
A. C. Digby.....	Ann Arbor.....			3
J. A. Brown.....	Ann Arbor.....			1
Steve Brousalis.....	Ann Arbor.....		2	
Bigalke & Reule.....	Ann Arbor.....			2
Bazley's Market.....	Ann Arbor.....			2
Applegate Creamery.....	Applegate.....			1
Applegate Elevator.....	Applegate.....		2	3
R. Hawkins.....	Applegate.....	1		1
Jos. Moffett.....	Applegate.....	2		
E. McNaughton.....	Applegate.....		1	
Carl F. Holden.....	Augusta, R. F. D.....	1		
J. B. Frechette.....	Bark River.....		1	
Milk Producers Co.....	Battle Creek.....		1	
Holland & Harrington.....	Bessemer.....		1	
Maroni & Moncher.....	Bessemer.....		1	
Geo. Antiohio & Co.....	Calumet.....	2	1	
Barsotti Bros.....	Calumet.....	2		
M. Bianchi & Co.....	Calumet.....	2		
Victor Brandon.....	Calumet.....		1	
George Fox.....	Calumet.....		1	
Glass Block Store Co.....	Calumet.....	2	1	
H. E. Lean & Sons.....	Calumet.....	2	3	
Lake Linden Co-operative Co.....	Calumet.....	1		
S. Joseph.....	Calumet.....		1	
Ed. Keiser.....	Calumet.....	1		1
Victor Mackl.....	Calumet.....	1		
Matherson & Johnson.....	Calumet.....	1	1	
Carla Miglio.....	Calumet.....	1		
Mike Paul.....	Calumet.....		1	
Olaf Paulson.....	Calumet.....	1		
Quick & Pascoe.....	Calumet.....	1		
N. Reding & Co.....	Calumet.....	4		
F. H. Schumacker.....	Calumet.....	2		
Henry Somonen.....	Calumet.....	2		1
J. D. Lashbrower.....	Central Lake.....		3	3
W. H. Sherman.....	Central Lake.....		1	
C. E. Walker Co.....	Central Lake.....		1	
Martin Block.....	Charlevoix.....		2	1
F. S. Blanchard Est.....	Charlevoix.....		1	
H. R. Fowler.....	Charlevoix.....		2	
C. L. Ganser.....	Charlevoix.....		1	
Geo. Glados.....	Charlevoix.....		1	
Fiske Hardware Co.....	Charlevoix.....		1	
L. J. McCann.....	Charlevoix.....		1	
H. E. McHugh.....	Charlevoix.....		1	
F. S. Myers.....	Charlevoix.....		2	
Provost & Lloyd.....	Charlevoix.....		1	
Smalleher & Smith Co.....	Charlevoix.....		3	
H. G. Ketchum.....	Cohoctah.....	1	1	1
J. D. Locke.....	Cohoctah.....	1		
W. E. Miller.....	Cohoctah.....		1	1

SCALES EXAMINED DURING THE MONTHS OF NOVEMBER AND DECEMBER, 1914.—
Continued.

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
Edwin Pratt.	Cohoctah.		1	1
Henry Deloria.	Cook Mills.		1	
Wm. Stilmach.	Copper City.	1		1
Sam Morris.	Cross Village.		1	
Walter Samolski.	Cross Village.		1	
C. H. Schand.	Cross Village.		1	
City Market Co.	Detroit.	1		
R. H. Heiniman.	Detroit.		1	
G. L. Ireland.	Detroit.		1	
J. Lawanda.	Detroit.		1	
F. Michael.	Detroit.		1	
Alec Wilson.	Detroit.		1	
A. E. Bartlett.	East Jordan.		4	
E. L. Burdock.	East Jordan.		1	
John Batsakis.	East Jordan.		2	
A. Churchill.	East Jordan.		1	
H. L. Dunson.	East Jordan.		1	
East Jordan Lumber Co.	East Jordan.		3	
D. E. Goodman.	East Jordan.		1	
John Williams.	East Jordan.		1	
Ed. Bittner.	Escanaba.		1	
S. W. Brennan.	Escanaba.		1	
Geo. Jensen.	Escanaba.		1	
John O'Meara.	Escanaba.		1	
Wm. Saur.	Escanaba.		1	
Thompson Bakery.	Escanaba.		1	
Henry Delorua.	Garden.		1	
Paul Lamkey.	Garden.		1	
Gustin Elevator Co.	Gustin.		2	
Adams Express Co.	Harbor Beach.	1		
Dawson & Feick.	Harbor Beach.	3		
Harwood & Darlington.	Harbor Beach.			1
Harwood & Darlington (Market).	Harbor Beach.	2		
Huron Milling Co. (Mill).	Harbor Beach.	5		
Huron Milling Co. (Elevator).	Harbor Beach.	6	1	
Medina Creamery Co.	Harbor Beach.	1		
Michigan Creamery Co.	Harbor Beach.	1		
Mihlethaler Co., Ltd.	Harbor Beach.	6	1	1
Mihlethaler Co., Ltd. (Retail).	Harbor Beach.	1		
Port Huron Creamery Co.	Harbor Beach.			1
Producers Elevator Co.	Harbor Beach.	3		1
James Ramage.	Harbor Beach.	1		
Green Bros.	Harrisville.		3	
Perry Jacobs & Son.	Holly.		1	
Gordon Elevator Co.	Howell.	5	1	
Howell Lumber & Coal Co.	Howell.			1
Jones Bros. Coal Co.	Howell.			1
Coocarelli & Spadafore.	Howell.			4
Strobel & Schmidt.	Howell.	2	2	1
J. O. Taft.	Howell.	1		
John Forslund.	Ironwood.		1	
W. H. Madison, Agt.	Ironwood.		1	
Dominic Gentillo.	Jesseville.		1	
Finnish Workmen's Co-operative Co.	Kearsarge.	1	1	
Peterman Stores Co. (Grocery).	Kearsarge.		2	
Peterman Stores Co. (Market).	Kearsarge.	1	1	
Peterman Stores Co. (Market).	Kearsarge.	1		1
Peterman Stores Co. (Grocery).	Kearsarge.	2		2
Chas. Fink.	Lake Linden.		1	
Geo. Grammes.	Lake Linden.	2		
L. Hennes & Co.	Lake Linden.	1		
W. C. Gilbert.	Lake Linden.	2		
Lake Linden Co-operative Society.	Lake Linden.	1	2	
Medeard LaPlante.	Lake Linden.	1	1	
John Pfeifer.	Lake Linden.	1	1	

SCALES EXAMINED DURING THE MONTHS OF NOVEMBER AND DECEMBER, 1914.—
Continued.

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
T. H. Rule & Bros.	Lake Linden	2	1	1
E. F. Sutton & Co.	Lake Linden	6	1	1
F. G. Wiesenauer	Lake Linden	1	1	1
Gourd Bros.	Laurium	1	1	1
F. H. Lantz & Co.	Laurium	1	1	1
Bat Marta.	Laurium	1	1	1
Nels Nelson	Laurium	1	1	1
Niemela & Son	Laurium	1	1	1
W. J. Reynolds	Laurium	1	1	1
James A. Torreano	Laurium	1	1	1
Alcona Roller Mills.	Lincoln	1	1	1
E. Goheen	Lincoln	1	1	1
Lincoln Mercantile Co.	Lincoln	1	1	1
Hoarl & Bennett.	Levering	1	1	1
Mason Elevator Co.	Mason	1	1	1
R. B. Rayner	Mason	1	1	1
J. P. Smith	Mason	1	1	1
W. A. Cowie	Mikado	1	1	1
A. F. Krebs	Olivet	1	1	1
B. L. Axford	Owosso	1	1	1
C. & E. Capitan	Owosso	1	1	1
G. & C. Capitan	Owosso	1	1	1
Harry Capitan	Owosso	1	2	2
Peter Capitan	Owosso	1	1	1
Laverock & Mattison	Owosso	1	1	1
Mulhall & Erb Co.	Owosso	1	1	1
Owosso Gas Co.	Owosso	1	1	1
Owosso Gas Co.	Owosso	1	1	1
Owosso Ice & Coal Co.	Owosso	1	1	1
Owosso Sugar Co.	Owosso	1	1	1
Owosso Truck Co.	Owosso	1	1	1
Harry E. Smith & Co.	Owosso	1	4	4
Harry E. Smith & Co.	Owosso	1	1	1
Sturtevant & Blood	Owosso	1	1	1
W. H. Van Sice	Owosso	1	1	1
Dunning & Hart	Perry	1	1	1
Perry Lumber & Coal Co.	Perry	1	1	1
M. L. Finnegan	Pontiac	1	1	1
Ed. Hockey	Pontiac	1	1	1
Knox General Store	Pontiac	1	4	4
Star Grocery	Pontiac	1	1	1
G. A. Webb	Pontiac	1	1	1
C. J. Barnard	St. Louis	1	1	1
Holland-St. Louis Sugar Co.	St. Louis	1	1	1
Lou. Martin	St. Louis	1	1	1
P. M. Freight Office	St. Louis	1	1	1
J. H. Palmer	St. Louis	1	1	1
J. L. Smith	St. Louis	1	1	1
O. Watts	St. Louis	1	1	1
Moses Andary	Sault Ste. Marie	1	1	1
A. M. Andary	Sault Ste. Marie	1	1	1
M. H. Bosbous	Sault Ste. Marie	1	1	1
R. H. Boss	Sault Ste. Marie	1	2	2
Lawrence Delma	Sault Ste. Marie	1	1	1
John Dion	Sault Ste. Marie	1	1	1
Sam Elliott	Sault Ste. Marie	1	1	1
E. Fleming	Sault Ste. Marie	1	1	1
Peter George	Sault Ste. Marie	1	1	1
James Goulding	Sault Ste. Marie	1	1	1
Geo. Kolvos	Sault Ste. Marie	1	1	1
Geo. Mitchen	Sault Ste. Marie	1	2	2
J. H. Moher	Sault Ste. Marie	1	1	1
Chris Moloney	Sault Ste. Marie	1	1	1
E. J. Murray	Sault Ste. Marie	1	1	1
J. Napoleon	Sault Ste. Marie	1	1	1

SCALES EXAMINED DURING THE MONTHS OF NOVEMBER AND DECEMBER, 1914.—
Concluded.

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
Pappas Bros.	Sault Ste. Marie.		1	
John Roe.	Sault Ste. Marie.		1	
Eugene Rogers.	Sault Ste. Marie.		2	
Mrs. Risso.	Sault Ste. Marie.		1	
G. Sergannes.	Sault Ste. Marie.		1	
L. C. Skidmore.	Sault Ste. Marie.		1	
Western Express Co.	Sault Ste. Marie.		2	
Wheatley Bros.	Sault Ste. Marie.		3	
John Delmet.	Wakefield.		1	
Chas. Trombley.	Wayne.			1
W. S. Bird.	White Cloud.		1	
J. Cohen Co.	White Cloud.		1	
Thomas Thorn.	Willis.		1	

MEASURES EXAMINED DURING THE MONTHS OF NOVEMBER AND DECEMBER, 1914.

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
C. A. Belourn.	Alpena.		4	
H. Flewelling.	Alpena.		4	
C. H. McKim.	Alpena.		4	
R. Orman.	Alpena.		3	
J. C. Runnels.	Alpena.		2	
Peter Smeoder.	Alpena.		2	
R. Holmes.	Alpena.		4	
Hickey & Hogle.	Alpena.		4	
Joseph Grianane.	Alpena.		3	
I. Cohn.	Alpena.		4	
Abbott & McLough.	Ann Arbor.		1	
John C. Fischer.	Ann Arbor.		8	
Geo. Goodrich.	Ann Arbor.		1	
Haasa & Heblen.	Ann Arbor.		1	
Knehnle & Weyer.	Ann Arbor.		6	
S. S. Kresge Co.	Ann Arbor.		3	
Chas. Limpert.	Ann Arbor.		5	
Tom Maes.	Ann Arbor.		1	
Muelig & Schmid.	Ann Arbor.		14	
John Neithammer.	Ann Arbor.		5	
Schumacher's Hardware.	Ann Arbor.		15	
Miss Anna Spathelf.	Ann Arbor.		1	
Staebler & Co.	Ann Arbor.		6	
Theurer & Walker.	Ann Arbor.		5	
J. F. Wagner & Co.	Ann Arbor.		5	
A. R. Fell.	Ann Arbor.		10	
J. H. Miller.	Ann Arbor.		8	
Keyer & Whitker.	Ann Arbor.		8	
W. H. Gregory.	Ann Arbor.		2	
B. Disderive.	Ann Arbor.		3	
A. C. Digby.	Ann Arbor.		5	
J. A. Brown.	Ann Arbor.		13	
Steve Brousalis.	Ann Arbor.		1	
Bigalke & Reule.	Ann Arbor.		5	
Victor Brandon.	Calumet.	1		
Glass Block Store Co.	Calumet.	7		
Victor Mackl.	Calumet.	2		
Matheson & Johnson.	Calumet.	6		
Martin Block.	Charlevoix.		6	
L. S. Lee.	Charlevoix.		2	

MEASURES EXAMINED DURING THE MONTHS OF NOVEMBER AND DECEMBER, 1914.

—Continued.

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
Marvin's Dept. Store.	Charlevoix.		4	
Smallager & Smith Co.	Charlevoix.		4	
B. Jublenskie.	Cross Village.		3	
Sam Morris.	Cross Village.		5	
Walter Samolski.	Cross Village.		1	
A. Abrams.	Detroit.		4	
J. J. Ackerman.	Detroit.		7	
W. J. Ackerman.	Detroit.		9	
Asher Bros.	Detroit.		4	
Awe & Sieler.	Detroit.		6	
Ballosen & Aneifer.	Detroit.		3	
A. Bennett & Son.	Detroit.		2	
J. L. Berman.	Detroit.		6	
Bethney & Miller.	Detroit.		4	
G. H. Boehm.	Detroit.		4	
Wm. Boyd.	Detroit.		1	
Ed. J. Bremans.	Detroit.		7	
E. Cork.	Detroit.		7	
City License No. 673.	Detroit.		1	
City License No. 101.	Detroit.		4	
City License No. 555.	Detroit.		3	
City License No. 131.	Detroit.		2	
City License No. 268.	Detroit.		4	
City License No. 555.	Detroit.		4	
Cash Bros.	Detroit.		4	
G. Chordoroff.	Detroit.		1	
Alex Cohen.	Detroit.		2	
Chas. Cohen.	Detroit.		5	
S. Collins.	Detroit.		3	
P. J. Conley.	Detroit.		3	
A. J. Connley.	Detroit.		5	
Chas. Cook.	Detroit.		5	
J. Cooper.	Detroit.		4	
J. Cooper.	Detroit.		5	
D. Cunningham.	Detroit.		1	
Wm. Cunningham.	Detroit.		3	
F. Dame.	Detroit.		4	
A. G. Damerow.	Detroit.		4	
S. David.	Detroit.		2	
Deratany Bros.	Detroit.		1	
F. C. Drews.	Detroit.		3	
S. Fedewa.	Detroit.		2	
J. Fishbain.	Detroit.		5	
L. J. Fruehauf.	Detroit.		8	
N. Gameberg.	Detroit.		1	
Geo. Gardiner.	Detroit.		6	
Gaynan & Van Sickle.	Detroit.		7	
Ben Gelman.	Detroit.		5	
L. Glass.	Detroit.		4	
Isadore Glazer.	Detroit.		1	
A. Gleck.	Detroit.		5	
S. Goldberg.	Detroit.		5	
E. R. Grabaske.	Detroit.		3	
L. D. Greenfield.	Detroit.		2	
F. A. Griese.	Detroit.		7	
Anthony Grober.	Detroit.		4	
E. Grier.	Detroit.		3	
Wm. Haarz.	Detroit.		5	
W. S. Haight.	Detroit.		6	
L. Halperns.	Detroit.		2	
H. Hammer.	Detroit.		4	
T. P. Harmong.	Detroit.		11	
A. H. Heiniman.	Detroit.		4	
Hickey Bros.	Detroit.		7	
Wm. Hilton.	Detroit.		4	

MEASURES EXAMINED DURING THE MONTHS OF NOVEMBER AND DECEMBER, 1914.

—Continued.

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
M. Hirsch.....	Detroit.....	.....	4	.....
Hyatt & Rouen.....	Detroit.....	.....	5	.....
M. Hyman.....	Detroit.....	.....	4	.....
A. Jaffe.....	Detroit.....	.....	4	.....
John Bros.....	Detroit.....	.....	4	.....
R. D. Johnson.....	Detroit.....	.....	5	.....
George Johnson.....	Detroit.....	.....	7	.....
L. Kasoff.....	Detroit.....	.....	3	.....
A. Kuaffman.....	Detroit.....	.....	4	.....
Wm. Korash.....	Detroit.....	.....	1	.....
Koury & Saba.....	Detroit.....	.....	6	.....
Kresge's 10-cent Store.....	Detroit.....	.....	1	.....
L. J. Kretschmar.....	Detroit.....	.....	5	.....
Chas. H. Kunse.....	Detroit.....	.....	9	.....
W. P. Lang.....	Detroit.....	.....	5	.....
Joseph Lapidés.....	Detroit.....	.....	5	.....
J. Leiblin.....	Detroit.....	.....	4	.....
L. Leibert.....	Detroit.....	.....	5	.....
H. Levin.....	Detroit.....	.....	4	.....
Otto Loeffelbein.....	Detroit.....	.....	4	.....
Lrable Gro. & Meat Co.....	Detroit.....	.....	4	.....
E. F. Lynch.....	Detroit.....	.....	4	.....
O. H. Massinch.....	Detroit.....	.....	6	.....
D. M. McCallum.....	Detroit.....	.....	4	.....
R. W. McClure.....	Detroit.....	.....	1	.....
G. W. McIntyre.....	Detroit.....	.....	3	.....
Mrs. Belle McKee.....	Detroit.....	.....	2	.....
J. A. Meagher.....	Detroit.....	.....	1	.....
P. Mehran.....	Detroit.....	.....	3	.....
Mexican Coffee Co.....	Detroit.....	.....	4	.....
E. Michael.....	Detroit.....	.....	1	.....
Michael Bros.....	Detroit.....	.....	7	.....
Mrs. L. Micus.....	Detroit.....	.....	5	.....
J. J. Miller.....	Detroit.....	.....	3	.....
H. Mitchell.....	Detroit.....	.....	4	.....
Samuel Munch.....	Detroit.....	.....	3	.....
H. C. Mundt.....	Detroit.....	.....	5	.....
E. Murphy.....	Detroit.....	.....	6	.....
Ed. Neuman.....	Detroit.....	.....	1	.....
Neveux Bros.....	Detroit.....	.....	5	.....
A. Nuytens.....	Detroit.....	.....	5	.....
H. Orsland.....	Detroit.....	.....	3	.....
L. M. Oulinet.....	Detroit.....	.....	4	.....
Samuel Palazzolo.....	Detroit.....	.....	6	.....
B. Patchett.....	Detroit.....	.....	4	.....
R. Paul.....	Detroit.....	.....	1	.....
A. Pepper & Son.....	Detroit.....	.....	4	.....
J. H. Peterpren.....	Detroit.....	.....	10	.....
J. Petrick.....	Detroit.....	.....	7	.....
M. Phillips.....	Detroit.....	.....	6	.....
Frank Piterovitch.....	Detroit.....	.....	3	.....
G. Plein.....	Detroit.....	.....	1	.....
J. Potrzuski.....	Detroit.....	.....	4	.....
J. & P. Platte.....	Detroit.....	.....	1	.....
P. Quirk.....	Detroit.....	.....	2	.....
J. Ranchverger.....	Detroit.....	.....	7	.....
Raymond Butter & Egg Co.....	Detroit.....	.....	2	.....
Reed Bros.....	Detroit.....	.....	4	.....
S. Rice.....	Detroit.....	.....	2	.....
Richter Bros.....	Detroit.....	.....	5	.....
J. Richeardi.....	Detroit.....	.....	5	.....
M. Root.....	Detroit.....	.....	6	.....
S. Rottenberg.....	Detroit.....	.....	3	.....
L. Roy.....	Detroit.....	.....	1	.....
St John's Grocery.....	Detroit.....	.....	2	.....

MEASURES EXAMINED DURING THE MONTHS OF NOVEMBER AND DECEMBER, 1914.

—Continued.

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
A. Samisky.....	Detroit.....		2	
The Sanitary Grocer.....	Detroit.....		2	
J. J. Schlenck.....	Detroit.....		4	
A. Schmidt.....	Detroit.....		4	
Schneider & Bates.....	Detroit.....		1	
E. E. Schultz.....	Detroit.....		1	
A. Segall.....	Detroit.....		3	
H. Shacollinck.....	Detroit.....		4	
M. Shapero.....	Detroit.....		5	
M. Shapero.....	Detroit.....		4	
M. Singer.....	Detroit.....		2	
E. Socal & Son.....	Detroit.....		4	
S. Smeefsky.....	Detroit.....		1	
Louis Smith & Sons.....	Detroit.....		1	
S. Solomon.....	Detroit.....		2	
S. Spinedla.....	Detroit.....		3	
O. Stickley.....	Detroit.....		1	
P. E. Suggs.....	Detroit.....		10	
H. Swartz.....	Detroit.....		8	
E. Tardill.....	Detroit.....		8	
J. A. Tice.....	Detroit.....		4	
L. Towar.....	Detroit.....		4	
W. H. Tucker.....	Detroit.....		4	
William Waldenmiller.....	Detroit.....		5	
Wetherwas & McEwan.....	Detroit.....		6	
J. T. Warren Co.....	Detroit.....		5	
I. Wetsman.....	Detroit.....		4	
L. W. Wilsher.....	Detroit.....		5	
Wirth & Ghrls.....	Detroit.....		7	
M. W. Wolf.....	Detroit.....		5	
J. C. Worthman.....	Detroit.....		4	
Sam Valick.....	Detroit.....		5	
H. W. Ziemann.....	Detroit.....		1	
A. E. Bartlett.....	East Jordan.....		5	
Geo. A. Bell.....	East Jordan.....		4	
C. A. Brabant.....	East Jordan.....		5	
E. L. Burdock.....	East Jordan.....		4	
Geo. Carr.....	East Jordan.....		2	
H. L. Dunson.....	East Jordan.....		3	
E. Jordan Lumber Co.....	East Jordan.....		6	
Mihethaler Co., Ltd.....	Harbor Beach.....	1	4	
C. A. Best.....	Holly.....		1	
Westfall & Westfall.....	Holly.....		5	
W. C. Jilbert.....	Lake Linden.....		4	
Lake Linden Co-Operative Society.....	Lake Linden.....	3		
Medard LaPlante.....	Lake Linden.....	2	2	
John Pfeiffer.....	Lake Linden.....	2	1	
T. H. Rule & Bros.....	Lake Linden.....	3	1	
E. F. Sutton & Co.....	Lake Linden.....			
W. H. Josephson.....	Lincoln.....		4	
Hoar & Bennett.....	Levering.....		8	
Reed & Co.....	Levering.....		5	
J. J. Walker.....	Levering.....		2	
C. E. Baxter.....	Oxford.....		2	
G. A. Brokenshaw.....	Oxford.....		1	
Marshall Bros.....	Oxford.....		1	
John Sutherland.....	Oxford.....		1	
J. G. Sutherland.....	Oxford.....		2	
R. H. Baker & Co.....	Pontiac.....		1	
Blym & Whiting.....	Pontiac.....		11	
Brand & Bowles.....	Pontiac.....		7	
Cadillac Meat Market.....	Pontiac.....		1	
A. Chueop.....	Pontiac.....		4	
Donahue & Donahue.....	Pontiac.....		4	
D. H. Donavan.....	Pontiac.....		4	

MEASURES EXAMINED DURING THE MONTHS OF NOVEMBER AND DECEMBER, 1914.

—Concluded.

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
T. P. Farrell.....	Pontiac.....		6	
Ernest H. Fay.....	Pontiac.....		6	
E. E. Finley.....	Pontiac.....		8	
M. L. Finnegan.....	Pontiac.....		3	
F. W. Gaukler.....	Pontiac.....		7	
Tony Giglio.....	Pontiac.....		1	
D. E. Green.....	Pontiac.....		2	
Hazelton Fetch Co.....	Pontiac.....		3	
R. G. Hicklin.....	Pontiac.....		3	
Ed. Hockey.....	Pontiac.....		2	
Keale & Collins.....	Pontiac.....		5	
Knox General Store.....	Pontiac.....		6	
Lewis & Lewis.....	Pontiac.....		7	
W. H. Malkin.....	Pontiac.....		2	
Marsh & Bromley.....	Pontiac.....		4	
Wm. Mingst.....	Pontiac.....		5	
A. Moden.....	Pontiac.....		1	
M. E. Newman.....	Pontiac.....		1	
Chas. N. Newton.....	Pontiac.....		6	
O'Connor Bros.....	Pontiac.....		4	
O'Connor Bros.....	Pontiac.....		2	
Parmenter & Stock.....	Pontiac.....		5	
John Ravell.....	Pontiac.....		7	
Reynolds & Newman.....	Pontiac.....		2	
A. C. Ritch.....	Pontiac.....		8	
A. Shanasby.....	Pontiac.....		4	
The Star Grocery.....	Pontiac.....		7	
Geo. Updegraff.....	Pontiac.....		4	
B. O. Whitefield.....	Pontiac.....		19	
E. D. Bernier.....	Sault Ste. Marie.....		2	
R. H. Boss.....	Sault Ste. Marie.....		2	
Sam Elliott.....	Sault Ste. Marie.....		1	
E. Fleming.....	Sault Ste. Marie.....		2	
James Goulding.....	Sault Ste. Marie.....		2	
Eugene Rogers.....	Sault Ste. Marie.....		2	
Brown & Co.....	Stockbridge.....		1	
W. J. Daneer & Co.....	Stockbridge.....		1	
Lantis & Brownell.....	Stockbridge.....		1	
J. K. Stanley.....	Stockbridge.....		3	
Wells W. Bailey.....	Wayne.....		5	
H. Janner.....	Wayne.....		3	
C. H. Kingeburg.....	Wayne.....		9	
H. Peters.....	Wayne.....		3	
Stellwagen & Snyder.....	Wayne.....		8	
Chas. Trombley.....	Wayne.....		2	
G. W. Vealey.....	Wayne.....		2	
Bernhard Merc. Co.....	White Cloud.....		1	
W. S. Bird.....	White Cloud.....		2	
J. Cohen Co.....	White Cloud.....		2	
C. E. Wilson.....	White Cloud.....		2	
Thomas Thorn.....	Willis.....		2	

WEIGHTS EXAMINED DURING THE MONTHS OF NOVEMBER AND DECEMBER, 1914.

Name of firm.	Location.	Sealed.	Con- demned.	Adjusted.
Applegate Elevator.....	Applegate.....	3		5
R. Hawkins.....	Applegate.....	5		
Jos. M. G. Moffett.....	Applegate.....	6		
Geo. Antiohio & Co.....	Calumet.....	6		
M. Bianchi & Co.....	Calumet.....	5		
Glass Block Store Co.....	Calumet.....	11		8
H. E. Lean & Sons.....	Calumet.....	8		
Ed. Keiser.....	Calumet.....	4		1
Matheson & Johnson.....	Calumet.....	4		1
Carla Miglio.....	Calumet.....	5		1
N. Reding & Co.....	Calumet.....	6		
H. G. Ketchum.....	Cohoctah.....			3
W. E. Mills.....	Cohoctah.....	4		
Edwin Pratt.....	Cohoctah.....			4
E. L. Brudock.....	East Jordan.....		3	
Harwood & Darlington.....	Harbor Beach.....	2		1
Huron Milling Co. (Mills).....	Harbor Beach.....	14		
Huron Milling Co. (Elevator).....	Harbor Beach.....	15		3
Medina Creamery Co.....	Harbor Beach.....	1		3
Michigan Creamery Co.....	Harbor Beach.....	1		
Mihethaler Co., Ltd.....	Harbor Beach.....	4		
Mihethaler Co., Ltd. (Retail).....	Harbor Beach.....	2		6
Port Huron Creamery Co.....	Harbor Beach.....	3		
Producers Elevator Co.....	Harbor Beach.....	17		2
Gordon Elevator Co.....	Howell.....	14		
Coscarelli & Spadafore.....	Howell.....	11		1
George Grammes.....	Lake Linden.....	4		2
George Grammes.....	Lake Linden.....	5		
Lake Linden Co-operative Society.....	Lake Linden.....	8		
E. F. Sutton & Co.....	Lake Linden.....	14		
F. G. Wiesenauer.....	Lake Linden.....	2		
Mrs. Russo.....	Sault Ste. Marie.....		4	

YARD STICKS, COUNTER MEASURES AND TAPES EXAMINED DURING NOVEMBER AND DECEMBER, 1914.

Name of firm.	Location.	Correct.	Incorrect.	Adjusted.
Mrs. Urquhart Gaudette.....	Bessemer.....		1	
Skud Goldman & Co.....	Bessemer.....		14	
Hagan & Soldberg.....	Bessemer.....		3	
Kulasavicz & Skwor.....	Bessemer.....		1	
P. J. LaBlond.....	Bessemer.....		18	
L. H. Truettner & Co.....	Bessemer.....		10	
Glass Block Store Co.....	Calumet.....		70	47
Matheson & Johnson.....	Calumet.....		3	
N. Reding & Co.....	Calumet.....		12	4
A. Bergeon.....	Charlevoix.....		14	
J. L. Crane.....	Charlevoix.....		13	
C. L. Ganser.....	Charlevoix.....		2	
M. A. Levenson.....	Charlevoix.....		14	
Mason's Dept. Store.....	Charlevoix.....		12	
Smallegger & Smith Co.....	Charlevoix.....		15	
Walter Samolski.....	Cross Village.....		2	
M. E. Aschley & Co.....	East Jordan.....		4	
C. A. Brabant.....	East Jordan.....		2	
A. Danto.....	East Jordan.....		6	
E. Jordan Lumber Co.....	East Jordan.....		18	
H. Rosenthal.....	East Jordan.....		3	
J. L. Weisman.....	East Jordan.....		7	
M. A. Burns.....	Escanaba.....		3	
Ed. Erickson Co.....	Escanaba.....		75	
Fair Savings Store.....	Escanaba.....		35	

YARD STICKS, COUNTER MEASURES AND TAPES EXAMINED DURING NOVEMBER AND DECEMBER, 1914.—*Concluded.*

Name of firm.	Location.	Correct.	Incorrect.	Adjusted.
Kratze Bros.....	Escanaba.....	8		
Alex F. McRoe.....	Greenbush.....		4	
Frank, Marks & Frank.....	Holly.....		4	
Erickson Est.....	Jesseville.....		2	
Davis & Fair.....	Ironwood.....		53	53
Mr. Hirschland.....	Ironwood.....		12	12
Home Store Co.....	Ironwood.....		12	12
O. Honkanson.....	Ironwood.....		4	
Alfred Johnson.....	Ironwood.....		1	
Nanearrow & Tresines.....	Ironwood.....		1	
L. Hennes & Co.....	Lake Linden.....		13	
Solomon Jacobson.....	Lake Linden.....	5		4
Lake Linden Co-Operative Society.....	Lake Linden.....	14		14
E. F. Sutton & Co.....	Lake Linden.....	12		12
E. Goheen.....	Lincoln.....		1	
Hoar & Bennett.....	Levering.....		2	
Reed & Co.....	Levering.....		3	
J. J. Walker.....	Levering.....		1	
Joseph J. Kohn.....	Mikado.....		2	
Barriah Bros.....	Sault Ste. Marie.....		3	
Skud Goldman.....	Wakefield.....		8	
L. Lieberman.....	Wakefield.....		2	
Peoples Co-Operative.....	Wakefield.....		4	
Wakefield Store Co.....	Wakefield.....		4	
Wells W. Bailey.....	Wayne.....		1	
Stellwagen & Snyder.....	Wayne.....	1		

JANUARY, FEBRUARY, 1915.

The Weights and Measures Department is progressing. Since last report Mr. Wells of Marquette County and Fred Dolecke of Eaton County have started work inspecting. Also our Department has inspected more scales and measures than any other two months in the history of the Department. The Drug Inspectors are inspecting prescriptions scales, weights and graduates. The Creamery Inspectors are pushing the work of inspecting Butter Fat scales. We have experimented on Babcock test bottles and cream scales and have introduced a Bill in the Legislature embodying our ideas of the type of bottles and scales that should be used.

Our experiments on bean scales have resulted in finding that the majority of them are not sensitive enough. A Bulletin will be issued later showing our findings on same. We are greatly indebted to A. L. Chamberlain of Sandusky for the courtesy extended to us while testing the bean test scales of the various scale manufacturing firms, which were submitted for our examination.

We are now investigating the sale of Linseed Oil by the barrel. The custom of a great many firms to sell $7\frac{1}{2}$ pounds for a gallon, thereby short-measuring the retailer about 2 gallons to the barrel, seems a very hard one to reach by law, but will be done if possible.

Also, the sale of coal by the car. The invoices having the printed statement on that railroad weights must be accepted. Upon investigation we find the railroads weigh the cars out but do not weigh the empty cars in. We have found a large number of cars which had over

three tons of ice in the bottom, thereby beating the buyer out of that much coal.

For years the enforcement of the Weights and Measures Law has been very lax and our force is very small to enforce the law and stop all of the bad practices of dealers who short measure the trade, but those offenders are beginning to feel the hand of law bear heavily on them, until it will only be a short time in the future when a man will fear to give anything less than 16 ounces to the pound or 15 pounds for a peck of potatoes. The writer has nothing but pity for the man that starts to give some argument why he should not give 60 pounds for a bushel of potatoes.

Below is a summary of the work accomplished and I want to congratulate those who have been active, and particularly Mrs. Wheelan, in the number of illegal measures she condemned. The Detroit Inspectors do not inspect many scales because the city has an efficient Sealer.

	Correct.	Con- demned.	Adjusted.
Railroad track scales.....			
Hopper scales.....	1		
Wagon scales.....	7	7	2
Other platform scales.....	14	33	1
Suspension scales.....	2	5	
Counter scales.....	77	50	28
Spring balances.....	4	79	2
Beam balances.....	15	39	3
Computing scales.....	118	101	37
Slot personal scales.....		2	4
Cream scales.....		1	
Dry measures.....	854	1,427	
Liquid measures.....	78	123	
Milk jars.....			
Automatic pumps.....	2	3	
Baskets.....			
Boxes.....			
Yard sticks.....	5	6	
Counter measures.....	104	466	
Tapes.....		1	
Weights.....	352	9	43

B. B. LINCOLN,
Deputy Dairy and Food Commissioner,
In Charge of Weights and Measures.

MARCH-APRIL, 1915.

While we had no special weights and measures officials out during the months of March and April, the Food Inspectors of this Department while performing their duties as food inspectors, investigated into the conditions of scales and measures in the establishments in which they visited. The result is shown in the table below.

It is quite an argument on the necessity of having regular Sealers in all counties. If ten or twelve Food Inspectors from this Department by casual operations can discover such a large number of scales and measures that are illegal, it would seem that a regular weights and measures inspector could find a great many more. These weights and

measures are being used every day, largely to the detriment of the public. Especially is to be noted the large number of dry and liquid measures which have been condemned. These largely come from the City of Detroit, where peddlers, hucksters and unscrupulous dealers in many instances depend upon illegal measures to help out their profits.

The following are the inspections and condemnations made by our regular Inspectors and do not include condemnations made by City and County Sealers:

	Correct.	Con- demned.	Adjusted.
Railroad track scales.....			1
Hopper scales.....	3	1	
Wagon scales.....	6	4	1
Other platform scales.....	36	59	3
Suspension scales.....	1	21	
Counter scales.....	108	65	54
Spring balances.....	5	168	
Beam scales.....	14	19	1
Computing scales.....	248	119	165
Slot personal scales.....	1	1	
Cream test scales.....	2	1	
Patent scales.....	1	1	
Drug scales.....	2		
Dry measures.....	345	2,078	
Liquid measures.....	29	448	
Milk jars.....	12	2	
Automatic pumps.....	1		
Boxes.....	4	3	
Crates.....	2	4	
Yard sticks.....	8	8	
Counter measures.....	143	446	37
Tapes.....	37	18	
Weights.....	417	80	51

MAY-JUNE, 1915.

During the months of May and June the inspectors of this Department in addition to their regular duties as Food Inspectors examined 4,570 weights, measures and scales. Of these, 3,053 were found to be incorrect and condemned. 1,517 were found to be correct and of those incorrect 206 were adjusted correctly by the inspectors.

These results show that there is still a very large field for operation for the county and city sealers as it would appear that over 50% of the weights and measures of the state are in need of correction.

The following gives in detail the operations of the inspectors of weights and measures in May and June:

	Correct.	Incorrect.	Adjusted.
Railroad track scales.....			
Hopper scales.....		3	
Wagon scales.....	3	14	
Other platform scales.....	18	25	3
Suspension scales.....	1	27	
Counter scales.....	124	103	31
Spring balances.....	2	211	
Beam scales.....	68	44	6
Computing scales.....	287	210	146
Slot personal scales.....			
Cream scales.....		4	
Dry measures.....	141	1,141	
Liquid measures.....	75	848	
Milk jars.....			
Automatic pumps.....	8	1	1
Baskets.....			
Boxes.....			
Yard sticks.....	21	24	
Counter measures.....	138	473	6
Tapes.....		35	
Weights.....	631	90	15
Totals.....	1,517	3,053	206

REPORT OF THE SECRETARY OF THE WEIGHTS AND MEASURES CONVENTION. HELD IN THE CITY OF DETROIT, JULY 6-7-8, 1915.

The second Annual Conference of the Michigan Weights and Measures Conference was held in the City of Detroit, July 6-7-8, and was attended by seventy-two delegates, which was more than double the number that attended the Conference of last year. This we believe is sufficient evidence to prove that our State Department is doing splendid work in its efforts to advance the Weights and Measures work in Michigan.

Tuesday morning, July 6th, at ten o'clock the Convention was called to order by Deputy-Commissioner, Burr B. Lincoln, who introduced Mayor Marx of Detroit, who gave the address of welcome. Among other things, the Mayor said that he was always glad to welcome Conventions to Detroit, but that he was particularly glad of the opportunity of welcoming this Weights and Measures Convention inasmuch as its deliberation and work was of great interest to every citizen of not only Detroit but the whole State, and that he felt assured that as soon as the people became more familiar with the efforts of the Weights and Measures officials they would surely give them better support.

He stated that he wanted the Convention to feel that they always had a hearty welcome to the City of Detroit, and that while Detroit didn't want to appear hoggish yet at the same time he hoped the Convention would decide to meet at Detroit every year inasmuch as several

of the Scale Companies were located there and that there were many other reasons why Detroit should be selected.

Mr. E. P. Berry, Attorney for the State Department, responded to the Mayor's address of welcome. Mr. Berry said that the Conference very much appreciated the Mayor's hearty welcome and that they were particularly glad that he took the keen interest in Weights and Measures endeavor and that he only wished that the mayors of other cities would take as keen an interest. In closing Mr. Berry informed the Mayor that the Conference was very grateful to the City of Detroit for past favors and would certainly take into consideration the Mayor's generous offer, for the Convention to meet there each year.

Progress made with the Weights and Measures of Michigan by Burr B. Lincoln, Deputy Superintendent of Weights and Measures. Mr. Lincoln opened his remarks by expressing a desire that the Delegates would go into this Conference with considerable of a vim and that they would enter into the discussion to the best of their ability, for as he expressed it, the greatest value of Conventions of this kind came from the discussion of the different papers given. He told the Conference something of the feeling held against Sealers of Weights and Measures in the Northern part of the State, that when they were first appointed it was almost impossible to get any support for the department whatever, but that after the Department had been established in the various counties for several months there seemed to be a decided change in favor of the Weights and Measures Department.

Mr. Lincoln told step by step of the progress made by the State Department since its conception, told of the great efforts of Mr. Helme, the State Superintendent of Weights and Measures, in his efforts to get a State Department of Weights and Measures through the Legislature, and that it had been a constant fight ever since in order to get the various bodies of Supervisors to appoint County Sealers of Weights and Measures, for the reason that the law provided that it might be optional instead of mandatory for the Supervisors to make an appointment of County Sealers of Weights and Measures.

In closing Mr. Lincoln told something of the difficulties the State Department had had in getting through the Legislature some of the new Weights and Measures laws that were enacted this year. Among them are as follows:

A milk bottle law requiring that all milk jars should be sealed at the factory and that all milk bottle manufacturers should post with the State of Michigan a bond guaranteeing to the State that all their bottles would comply with the State tolerances and specifications.

A babcock test bottle bill which establishes nine drams as its standard instead of 18 drams as in the past, and that the Department had agreed to test all Babcock test bottles free of charge and that they had already tested over a hundred and fifty gross of bottles.

Another bill that the Department endeavored to get through the Legislature and failed was an amendment to the Weights and Measures act which called for the elimination of the word "knowingly." The word "knowingly," as you all know, makes conviction under this act almost impossible, for the reason that it is impossible for an official to show

the State of a man's mind, consequently with the word "knowingly" in this Bill a conviction was very hard to get. The Legislature, however, was unable to see this point and the bill was defeated by a very small majority.

Mr. Lincoln stated that the Inspectors had been finding in their travels that a large majority of the scales were found out of balance, and up to the present time the Inspectors had been putting the scales in balance and warning the dealers that the scales must be kept in that condition. From now on the position of the Department is going to be that whenever a scale is found out of balance, it will be construed as a false scale, and prosecution will be started for the use of a false scale.

Value of Standardization of Fruit and Vegetable Packages. By Honorable John F. Farrell, Commissioner Weights and Measures, New York State. Mr. Farrell told of the wonderful advancement the Weights and Measures Department of New York State had made in the promulgation of standard fruit and vegetable packages. He advised the Michigan Department to take the matter up at once and do everything in its power to urge the next Legislature to standardize such packages in this State. He said that before this system was adopted in New York State there were as many different sized packages as there were creeds and religions, but at the present time they had eliminated those conditions and now had standard packages and containers. He also advised the Department not to embody any tolerances for error in the statute, for as sure as they did the manufacturers would immediately take advantage of the situation and make their packages so as to compare with the tolerance allowed and not with the standard. For illustration he explained the New York statute which allowed a 7% variation on berry boxes. This statute allowed all berry boxes that were within 7% of the standard size to be used on the market, and that within a very short time practically every berry box in New York State was 7% short. Mr. Farrell's address was very instructive and was greatly appreciated by the Conference, and a vote of thanks was extended to Mr. Farrell for coming to Michigan and giving us the great advantage of his extended experience.

"RE-WEIGHING OF COMMODITIES."

BY F. G. BARNARD, CITY SEALER OF BATTLE CREEK, MICHIGAN.

Mr. Chairman and Gentlemen of this Convention: The work of a weights and measure official has many angles and divisions, all of which are important and essential in your noble effort of securing for the purchasing public honest weights and measures. The foundation of the work is the testing of weighing and measuring apparatus in order to determine that they are positive and accurate.

After this has been accomplished and the inaccurate apparatus has either been condemned or corrected the purchasing public has their rea-

sons to believe, that they will receive honest weights and measures, provided that the dealer, or in other words, the hand behind the scale or measure gives them the amount ordered or asked for.

An honest man blushes with shame at the statement, that a dealer would deliberately short weigh or measure a customer, but my friends we all agree that this sort of thing is going on every day, and in thousands of places, regardless of the fact that thousands of these people so short weighted and measured are striving by working long hours to make a bare existence, and can scarcely afford the necessities of life provided they get full weight and measure.

The short weight artist of today is as a rule a shrewd and clever dealer, and will always take particular pains to have his scales and measures correct, and then will deliberately short weigh and measure when your back is turned, and then if an occasional customer discovers he has been short weighted, and returns to the dealer and confronts him, he will immediately show him that his scales are correct, and that the delivery boy must have lost some of the commodity or else the clerk made a mistake, and that he will make the shortage right at once.

The unsuspecting customer thinks this smooth explanation very plausible and returns home satisfied that mistakes of that kind only happen once in a while inasmuch as the dealers scales and measures are correct, and that he should not complain.

This is the sort of dealer, Mr Chairman. that the weights and measure official has got to watch very closely, and this is where I firmly believe the principal angle of the Sealer's work comes in; "The re-weighing of commodities."

Unless this branch of the work is watched very carefully the real value of weights and measure inspection is entirely lost.

As to what is the most advisable method to adopt in re-weighing commodities depends altogether upon the local conditions of your city or county.

In many cities, as is the case in my city, the City of Battle Creek, the delivering of groceries and provisions is done by general delivery or transfer company, who maintain what they call a transfer station, where all the produce is brought from all the different stores, and then transferred to the route which it belongs on.

The re-weighing of commodities where a system of this kind is found is very simple. It is only necessary to bring your re-weighing scale, which is by the way a very necessary piece of apparatus that each official should have, and your measures to this particular station and re-weigh the different commodities at will. By following this practice up day by day you soon discover who the short weight dealers are and at the same time secure evidence against them.

In cities where each dealer has his own delivery it is more difficult to check and re-weigh the commodities, inasmuch as you are compelled to stop each wagon wherever you find them. But nevertheless when the dealer becomes advised that you are re-weighing his commodities he is going to be very careful that his weights are correct weight, and that is the very object of your work the assuring of correct weights and measures.

There are many other articles equally as important as groceries and provisions that will demand your attention such as coal, coke, ice, hay, straw, feed, flour in carload lots and live stock. There is more or less of short weight practice on each one of these commodities just named, and the re-weighing of these goods as often as possible will be indicative of a great deal of good for the dishonest dealer will become alarmed at once and stop his short weight practice for fear of exposure and publicity.

There is still another branch of reweighing, the re-weighing of produce as it is shipped from the wholesaler and jobber to the retailer.

During my experience I have found considerable short weight and measure in this respect, and I have also found that this re-weighing and measuring has been very much appreciated by the retailer, for in the past as a rule very little if any check has even been kept on produce from the wholesaler or jobber.

Several of the wholesalers and jobbers seemed to be taking advantage of the retailers neglect of checking up his produce, for when I began this investigation I found the same conditions to exist not only in a few stores, but in practically all of them.

When this condition was brought to the attention of the wholesalers and jobbers they claimed the shortage on a great many commodities was caused by shrinkage largely, but I find at the present time that the weights check very closely, and that they do not have anywhere near as much trouble with shrinkage as they did at first.

Consequently I maintain that the re-weighing of commodities is the most important angle of the weights and measure work.

At the conclusion of this paper a very extended discussion was entered into by various delegates. Mr. John T. Rowe of the State Department, who is located in the Upper Peninsula, told of the conditions in the upper part of the State, which were very bad indeed, and that he had found upon re-weighing commodities that there was considerable short weight and measure in the Upper Peninsula. He also said that he had found that the dealers were a great deal more careful about their weights and measures when they discovered that he was re-weighing their commodities, and that he believed it was the only method of checking up the dealers.

Mr. Helber, also of the State Department, related his experiences along the same line, stating that he had found conditions very similar to those explained by Mr. Rowe and that he wished to concur in the position taken by Mr. Rowe. A great deal of interest was taken in the discussion of this subject inasmuch as it was a new proposition to a great many of the recently appointed Sealers and a great many questions were asked.

At this point Lieut. Austin, City Sealer of Detroit, brought up the question, and asked Mr. Farrell of New York to answer it, as to why New York had approved of a stricken bushel crate containing 2150 cubical inches to be used for a container for heapeage measure commodities. Mr. Farrell replied that the Statutes of the State of New York held that 2150.42 was the standard cubical contents of a bushel, and

that they were compelled under that Statute to serialize and approve a crate with that content.

At the conclusion of this reply a general discussion was entered into relative to this particular crate. The delegates held that it was a very unfortunate condition that heapage commodities were allowed to be sold in a container that was stamped as one bushel and would not hold anywhere near the weight of a bushel of those particular commodities. After considerable discussion along this line Mr. Berry of the State Department moved that this Convention go on record to urge a law that would eliminate measures and require all commodities ordinarily sold by dry measure to be sold by weight only. This motion was amended by Mr. M. J. Smith, Chief Clerk of the Dairy and Food Department, that instead of the Convention offering this Resolution, that the Executive Committee of this Conference be instructed to draft a Bill of this nature and report back to the Convention next year. This motion was carried and the Executive Committee instructed to have this Bill prepared for the next session of this Conference.

"VALUE OF EXHIBITS AT FAIRS."

BY GEORGE A. HAWKINS, CITY AND COUNTY SEALER, BAY COUNTY.

Mr. Chairman and Gentlemen: In preparing this paper of "Value of Exhibits at Fairs," the writer will endeavor to present to the sealers of the State the great interest shown by visitors to the Northeastern Michigan Fair, held at Bay City, September 1914, and one of the best methods of conducting an educational campaign relative to the buying of foodstuffs.

When the office of Sealer of Weights and Measures was created in Bay City very few people, if any, realized what this office meant to the buying public. Some looked upon it as the means of furnishing some one with an easy job at the expense of the tax-payers. A short time after an equipment had been procured the public press began to tell its readers what was "doing" in the inspecting line. After working about six months a few began to realize what these inspections meant and the results obtained. Inquiries were coming in from all quarters as to the laws under which this work was being carried on.

Again the public press was resorted to and they gladly co-operated with the sealer in giving to the public the General Food and Weights and Measures laws. This method of conveying to the public newly enacted laws is one of the best, as it is possible to reach thousands of readers daily who otherwise would not receive such information. In addition to the information given by the public press an exhibit of all the different measures, scales, graduates, baskets, etc., was given at the Bay City fair in 1914, and the display was one of the most interesting exhibits at the fair.

Included in this exhibit was placards such as "When you Buy, Buy

by Weight," "Unreliable Scales," "This is What You Received," "This is What You Did Not Get," "This is What You Should Get," "Look for the Weight on All Packages," etc. Standard and illegal measures were filled with different commodities and the differences between these were exposed; comparisons were made between faulty and reliable scales; the shortage of the so-called two-quart fruit jar—which a large number of people send to the store to be filled with vinegar, etc.—was also disclosed. This display of condemned measures and scales was the most talked of exhibit, and was visited by thousands of men, women and children, whose interest was manifest by the questions asked and time devoted to inspecting this display. During this exhibit thousands of pieces of literature, issued by the State Department, was handed out and carried home by the visitors.

In dealing with the subject, "Value of Exhibits at Fairs," one must take into consideration what this "Value" is and whether the value is a lasting one. Your attention is called to the vast amount of information which may be distributed through an exhibit. The people standing before your booth, will inspect the various weights and measures, which have been condemned. These pieces become imprinted on their mind. They then turn their attention to these weights and measures which bear the seal of approval. These, too, become imprinted on their mind. Then the most valuable process of all takes place. They make a comparison of the fair to the unfair weights and measures. Last but not least, they inquire of the man behind the booth, who should be the sealer himself, as to the working of both kinds of scales and measures, where and how they are defective or good, etc. The sealer then has the opportunity to teach a lesson and drive it home for a lasting effect.

In this state the enforcement of the weights and measures laws is firmly established and those places where inspections are or will be inaugurated will be amply repaid for their time and expense in placing before the public at their coming county or city fair an exhibit of the work done in their respective district.

"Seeing is Believing" and when you place before the public the crude and inaccurate methods still in use by some dealers there is but one result—the change of that method and the co-operation of the public and the department of weights and measures.

At the conclusion of this paper a general discussion was entered into by the delegates, after which Mr. Mickel of Grand Rapids moved that it be the sense of this Convention that the Sealers endeavor to put on Weights and Measure exhibits at their coming County Fair. This motion was carried unanimously. Mr. Lincoln, Deputy Superintendent of Weights and Measures, stated at this time that the State Department would be willing to furnish the State exhibit to the various sealers to be used at their fairs, and that the State Department would do all in its power to aid them in putting on these exhibits.

At 7:30 in the evening of this day's session a demonstration of the Detroit Automatic scale was held at the factory of this scale company. Mr. Barnes of this company had all of the various parts of one of their scales placed on a table before the delegates and then began to ensemble

the scale step by step making the various adjustments and explaining to the delegates step by step how and why they were made, until the scale was entirely completed, tested and scaled. This demonstration was greatly appreciated by the delegates, for a great many of them had never had an opportunity before to see a scale of this kind constructed.

Wednesday morning, July 7th, the Convention was called to order by Burr B. Lincoln, Deputy Commissioner of Weights and Measures, and Mr. M. J. Smith, Chief Clerk of the Dairy and Food Department, was called upon for a paper on "The Value of Issuing Circulars, Posters and Cards Explaining Laws and Specifications." This paper is as follows:

PUBLICITY VALUE OF CIRCULARS, POSTERS, ETC.

BY M. J. SMITH.

In discussing the value of issuing circulars, posters, and cards, explaining laws and specifications it would be well to answer the following questions:

Should the public be educated?

Does the public wish to be educated?

Will the people go to the sources of education, or, must knowledge be brought to them?

What are the most efficient means of bringing knowledge before the public?

In the answers to these questions lies the whole argument for educational literature upon any subject.

Should the public be educated? My friends, knowledge of any subject as possessed by students and specialists, is of value only insofar as it is potential public knowledge. The laws evolved in laboratories or framed in legislative halls are of no value as long as they remain concealed in the records of scientists or shut up in the statute books of the state; it is only when they become the property or tools by which the interests of the people are advanced that they become of real worth; in a word it is when they become known to the people and are used by them, that they are of any value.

Does the public wish to be educated? The experience of those who work with the people seems to be that the great mass of mankind is in a receptive state of mind—willing to be educated but many of them not knowing how or where to obtain knowledge, others not taking the time or trouble to seek it out.

Will the people go to the sources of education or must knowledge be brought to them? History shows that from Christianity down every form of enlightenment has been brought to the people—disseminated by a few earnest, determined workers and specialists, among the great mass of those who wish to learn and are waiting to be taught,—not rushing to be taught, mark you, but waiting.

Since the people should be taught, would be taught, and could be taught, the most potent means of reaching them remains to be seen and here we come to a few very practical considerations of our own special subject.

By educating the public as to laws and specifications governing weights and measures we may do much to assist two classes—those who sell and those who buy. The former class whose duty it is to give correct weights and measures, should above all be informed as to their duties, since if they do not know the law they cannot obey it. They can be reached by circular letters sent to commercial clubs, individuals, etc., and by posters in places of business where weights and measures are factors. The second class—those who buy—should be educated in laws governing weights and measures since when they are so educated they will serve as a check upon those who sell, some individuals being so constituted that they will deal more honestly with those who are able to keep an intelligent watch upon them, then they will with others who are not so prepared.

With those who sell and those who buy informed as to their duties in the matter of weights and measures, I submit that we shall find the laws observed by all but a small minority—that minority being composed of those who could not and would not be honest under any circumstances and with any training. These may then be reached by prosecutions.

The task of training those who buy will be a somewhat greater undertaking than that of instructing those who sell. I would suggest securing the co-operation of as many as possible of those already engaged in educational work. The press could assist materially; schools where domestic science, agriculture, etc., are taught, could be supplied with literature and asked to have their teachers speak of the laws of weights and measures before their classes; settlement workers might be asked to assist in spreading information among those classes of people who most need to conserve the little of this world's goods that they have; public libraries might be supplied with posters for their bulletin boards; clubs, civic leagues, etc., could be circularized.

It is to be earnestly hoped that the dissemination of knowledge of the laws of weights and measures may be pushed vigorously and without delay as the time is ripe in these days when the high cost of living renders it especially desirable that the individual receive full value for every dollar.

For the past several years the Michigan Dairy and Food Department has been carrying on a campaign of popular education and those of us who have been connected with the Department during these years are in a position to tell you something of the results of this undertaking. Following the publication of the first educational bulletins, which were published by the press, posted in the public libraries, and otherwise brought to the attention of the public, hundreds of individuals wrote in and asked to be placed upon the Department's mailing list to receive literature as soon as issued, which fact shows that many citizens are willing, even eager, to be instructed in matters pertaining to their own and the public's welfare.

At the conclusion of this paper a discussion was entered into by Mr. Hawkins of Bay City, Mr. Mickel of Grand Rapids, Mr. Rowe of the Upper Peninsula, Mr. Farrell of New York, and Mr. Barnard of Battle Creek, all stating their experience along this line and urging the delegates to educate their constituents by using this sort of literature.

Measuring Gravel and Sand Wagon Boxes. By Lieut. Austin, City Sealer of Detroit. Mr. Austin explained to the Conference the difficulties he had had in securing honest measure in sand and gravel. When he first took up the work he found that there were a great many different sizes and shapes of wagons, holding all the way from 45 cubic feet to 54 cubic feet of sand or gravel, although they were all supposed to hold 54 cubic feet or 2 yards. In order to correct this condition he stated that he had to compel the rebuilding of practically all wagons in order to hold the 54 cubic feet, and after the wagon was rebuilt it was measured by the Weights and Measure Department and sealed the same as any measure.

A great many questions were asked Mr. Austin relative to this important matter and Mr. Austin explained the matter very plainly.

These remarks concluded the morning session.

At 2:30 the delegates took the boat, The City of Toledo, and went up the Detroit river to Star Island where a social session was held, which was concluded by a banquet in the evening. This entertainment was greatly appreciated by the delegates, inasmuch as it gave them an opportunity to get acquainted with each other and discuss different problems and propositions that always confront a Sealer of Weights and Measures.

Thursday morning, July 8th, at ten o'clock, Convention was called to order by Burr B. Lincoln, Deputy Superintendent of Weights and Measures.

"The Testing of Coke" by F. G. Barnard, City Sealer of Battle Creek, Michigan. Mr. Barnard gave a description of his method of determining the moisture contained in coke. He told of his many experiments and how he finally determined the number of pounds contained in a cubic foot of commercially dry coke, and from that basis determined the weight per cubic foot of all the various sizes and grades of this fuel. He explained that oftentimes coke would absorb as high as 40% of its own weight in moisture and that it was one of the biggest steals in the country to allow all this moisture to be sold by weight as coke. He offered to furnish all those who wished a copy of the ordinance governing the per cent of moisture allowed in coke in the City of Battle Creek, and that he would also furnish a copy of the weights per cubic foot of the different grades and sizes of commercially dry coke. This talk was discussed considerably and a great many of the delegates asked that they might be furnished with this information.

Mr. Berry, of the State Department, told something of the Department's efforts to get the stores and business houses of Detroit to buy and sell by weight. He explained that at the present time there were one hundred and fifty-four stores in the City of Detroit buying and selling exclusively by weight, and practically all the hotels in that city were buying their commodities by weight.

The next number on the program was the talk by Mrs. Dunk, "President of the Housewife's League of the City of Detroit," on the subject "Weights and Measure Law and Its Relation to the Housewife." Mrs. Dunk stated that as a usual thing the weights and measures departments of the various cities did not co-operate sufficiently with the housewife, inasmuch as the housewife knew very little as to what the Weights and Measure Department was doing and what it was for. She explained that practically every housewife in any city would be glad and willing to co-operate with the Department if she knew how to do so, and also knew that her co-operation was wished. She discussed at length the desire of the Housewives League to co-operate with the Department and also made a great many suggestions as to how the Department could inform the housewife as to just what they desired her to do. She also stated that very few housewives understood how to read a scale, and suggested that the Weights and Measures Department hold a school of instruction and teach the housewife how to properly read a scale in order that she might protect herself to a certain extent. Mrs. Dunk's remarks were very interesting and her suggestions were well taken, and considerable discussion followed her remarks.

"Testing Prescriptions Scales, Weights and Graduates." By Mr. M. A. Jones, Drug Inspector of the Dairy and Food Department. Mr. Jones gave a very interesting talk describing the condition of prescription scales and weights as he had found them about the State. He explained that as a rule the scales were in very good condition, but that he had found the weights in a very deplorable condition and that he had been compelled to condemn and confiscate a great many of these weights. Mr. Jones remarks were very instructive and considerable discussion followed his paper, for the testing of prescription scales and weights is a portion of the weights and measure work that has not been taken up very extensively as yet in Michigan, and a number of the Sealers are about to go into that work, and were very glad of the opportunity to hear of Mr. Jones' experience.

"How Our Model Specifications Were Determined." By the Hon. J. C. Conners, Member of the Specification Committee of the National Conference, Washington, D. C. Mr. Conners gave a brief history of how the National specifications were determined, how they had secured the weights and measure specifications of all the different countries in the world, and taking them as a basis began an investigation of the conditions in this country as compared with the conditions of the different nations of the old country. After several years of constant investigation, going into practically every city of prominence in the country and talking the matter over with the manufacturers of weights and measure apparatus, they finally compiled what is now known as the National specifications and tolerances. Mr. Conners remarks were very interesting and instructive and were greatly appreciated by every delegate present. A great many questions were asked Mr. Conners relative to the specifications on scales, especially by the scale manufacturers who, of course, were greatly interested in this particular matter. At the conclusion of this discussion a vote of thanks was extended to Mr. Conners for coming to Michigan and giving us this information.

"Testing of Weighing and Measuring Devices." By Lieut. George F. Austin, City Sealer of Detroit. Mr. Austin explained step by step his method of testing scales, explaining tests that should be made and how they should be made. Mr. Austin also explained how to use the United States Standard Barrel gauge. Mr. Austin's talk was very interesting and very much appreciated.

"Moisture Contained in Butter." By Mr. C. R. Webb, of the Dairy and Food Department. Mr. Webb gave a very complete talk upon the amount of moisture contained in butter. He stated that oftentimes as high as 30 per cent of moisture was found in butter put up in cartons. He explained if the cartons of butter were not kept cool enough in the ice box or were allowed to stand on the counter for any length of time that they would shrink considerably, thereby causing a short weight package. He advised the sealers to watch these conditions and see that the butter was properly kept in the ice box, and that they would avoid much short weight by this method.

Mr. Mickel of Grand Rapids gave a talk on the sale of eggs by weight. He went into this subject very thoroughly and extensively and after he had finished a great many of the Sealers were satisfied that eggs should be sold by weight and not by numerical count.

The next number on the program was the election of officers and the Convention proceeded to elect their officers for the ensuing year, which resulted as follows:

Chairman, Burr B. Lincoln, Harbor Beach.

Secretary, Fred G. Barnard, Battle Creek.

Executive Committee, George A. Hawkins, Bay City; George F. Austin, Detroit; Ed. J. Friar, Flint; John T. Rowe, Calumet; C. R. Webb, Chesaning, and the Chairman and Secretary.

Publicity Committee, W. J. Mickel, Grand Rapids, George A. Hawkins, Bay City, Fred G. Barnard, Battle Creek.

At the conclusion of this election a general discussion was held upon any subject which happened to be of interest to the various delegates, after which the Convention was adjourned subject to the call of the State Superintendent of Weights and Measures.

F. G. BARNARD,
Secretary.



DAIRY MANUFACTURING DIVISION REPORT

DAIRY MANUFACTURING DIVISION REPORT.

July 1, 1915.

Hon. James W. Helme, State Dairy and Food Commissioner, Lansing, Michigan:

Dear Sir:—I herewith beg to report on the work in the Dairy Manufacturing Division of the Department during the fiscal year ending June 30, 1915.

EDUCATIONAL SCORINGS.

Mandatory by statute it is the duty of the Department "to foster and encourage the Dairy Industry of the State with a view to improving and maintaining uniformity of the dairy products of the State, or in order to secure the practical and efficient operation of any plant producing dairy products in any locality in the State." (Act No. 12 P. A. 1905.) The present system of conducting these scorings and which was inaugurated in June, 1913 furnishes a very good barometer; forecasting as they do the general condition at the creameries submitting samples to the Department for scoring, both as to the quality of the product, and as to the practical and efficient operation of the plant in which the butter is made, thus the scorings serve as a guide for the field experts in inspecting and visiting the creameries, for the purpose of inspection, or instruction.

THE MICHIGAN SYSTEM.

As mentioned above the present system of conducting these scorings was inaugurated in June, 1913. That they were an experiment I do not deny, that they are a success we have now proven. In this connection I beg to call to your attention that the Minnesota Butter-Makers Association at their convention last year adopted resolutions favoring the scoring system in that State "along the line of the plan now used in Michigan." A number of other States have also adopted certain parts of the system. The State of Oregon has recently come into the fold and adopted the system "hook, bait, sinker and all."

NUMBER OF ENTRIES.

A total of 141 creameries participated in the series which closed January 1, 1915, by submitting one or more samples of their product. The present series will close January 1, 1916. Approximately the same proportion of butter-makers are contributing in the present series. Thus it will be seen that nearly one-half of the creameries registered with

the Department are taking advantage of the benefits of this work. A total of 638 samples were submitted during the last series. With this number of entries, and the samples scored under the present system it will be seen that they entail a great amount of work, as you will be able to glean from the rules herewith submitted.

PUBLICATION OF RESULTS.

The results of each month's scoring have been published in the trade press, but for obvious reasons only the names of the ten highest are given out for publication, but a complete record is kept of each entry and thus the Department has on file a record of the butter-makers taking part in these scorings and from these records we are able to recommend men to positions when such requests come to the Department, and which we receive frequently.

QUALITY OF MICHIGAN BUTTER.

The quality of Michigan butter has not materially improved during the year as a whole. In fact there is a question as to whether or not it is actually getting poorer, due to the fact that under present conditions the producer is offered no financial inducement to deliver to the creamery a better grade of milk or cream. Creameries generally pay the same price regardless of the grade or quality of the raw material. A great deal of cream is shipped during the year from various points over the State to some central location. It is a common sight at railroad stations during the heated summer season to see cream oozing over the tops of the cream cans or doing what is commonly called "boiling over." This is caused by the cream being heated to a very high temperature, which allows for very rapid bacterial production, which in this case is a gas producing bacteria. Their presence presents proofs that the cream is far advanced in the souring stage and cannot be made into high grade butter. The system of shipping cream long distances to some central creamery, if it can be called a system, is all wrong.

LOCAL CO-OPERATIVE CREAMERIES.

Without any desire to show partiality it is felt that the function of the Department is in order to "foster and encourage" the dairy industry in the State that it should foster and encourage that system of operating creameries which has proven to be the most desirable from the producers' standpoint. According to authentic statistics, the amount of butter made in Michigan Creameries is at the present time approximately 40,000,000 pounds. Co-operative creameries, well managed, pay on an average 5 cents a pound butter fat more to their patrons than is being paid by the large central plants where they are in control. This difference amounts to in the aggregate approximately \$200,000 to the cream producers of the State. This does not mean that the central plants pay five cents a pound butter fat less than co-operative creameries in the same territory. The reason for the difference is primarily brought about through the fact that cooperation has not

only resulted in a more economic basis of manufacturing and by reserving the manufacturers' profit and returning it to the producer, but also because of the fact that the quality of butter manufactured by co-operative creameries generally is superior to that made by the central plants. This is explained by the fact that in co-operative creameries every patron becomes part owner in the business and naturally for pecuniary reasons delivers his raw material to the creamery in better condition knowing that the better the raw material he delivers the better will be the finished product, which will in turn bring a higher price on the market and consequently a higher price to the producer. For these reasons we have given considerable assistance to various communities in the State in the organization of co-operative creameries. Requests for such assistance are considerably on the increase, indicating that the producers are beginning to realize the benefits to be gained through such co-operation.

• CREAMERY PROMOTERS.

The so-called Creamery promoter still occasionally bobs up in the State. Several plants have been built and equipped on which the owners could have saved from \$2,500 to \$3,000 if they had sought the Department's advice. At a number of points in the State representatives of the Department heard of their activity and proceeded to enlighten the community of the methods of these promoters and in each case succeeded in upsetting the promoters plans and thus saved them several thousand dollars.

CHEESE FACTORIES.

The cheese industry in Michigan is materially on the decline owing to the fact that many of the factories were located in sections which are now tributary to Detroit's City milk supply which is constantly reaching out further and further and the result has been that a large number of cheese factories were closed. Only approximately 75 cheese factories as compared with double that number a few years ago are now operating in the State.

TRADE MARK FOR MICHIGAN BUTTER.

At the Buttermakers' Convention at Flint in February that association supported the Department's plan for a State Brand for Michigan Butter, and at a joint session of the Butter-makers and the Creamery Owners and Managers Association a resolution was passed requesting the Legislature to give consideration to the matter. A bill was accordingly drafted and caused to be introduced by this Department. The bill was passed and approved by the Governor and it becomes a law in August. The Act provides for a commission consisting of three members, The Dairy and Food Commissioner, the President of the Michigan State Dairymen's Association, and the President of the State Butter-maker's Association. This commission under the Act is authorized and directed to formulate rules, regulations and specifications for a

State Brand or Trade Mark for Michigan Butter and is charged with the control of the same. The final rules and regulations will not be issued before the 1st of August, but I am herewith submitting the probable provisions.

MARKETING.

Your policy, considering it the business of the Department to assist the creameries not only to make butter and other dairy products of a higher quality and more uniform, but also to assist them in the marketing of it, is being received with much satisfaction by dairy manufacturing plants in the State, and with the State Brand or Trade Mark for Michigan Butter, machinery is provided that will make it possible to carry out such a program systematically. And while no doubt the State Brand will mean much work for the Department the results to the dairy industry of the State should more than justify it.

FEDERATING CO-OPERATIVE CREAMERIES.

As a demonstration, of the value of local farmers co-operating or federating for the purpose of unifying the product of their plants, improving the raw material received, greater efficiency in manufacture, improving their marketing system, etc., etc., we have organized a group of co-operating creameries near Grand Rapids with a membership of eighteen. The principal of this move is being watched not only in Michigan but in most all other dairy States in the Union. The results of such co-operation are so apparent that I need not go into greater detail.

WORK OF THE DIVISION APPRECIATED.

An examination of the files of this division reveals to what extent the work the Department is doing through this division (which is entirely educational) is being appreciated. Trade journals frequently contain editorials commenting on the work of this Division, and suggesting that other States follow some of our methods, and that is another way we have of telling how our efforts are rated.

CONCLUSION.

In conclusion I desire to say that my associates in the work of this division Mr. C. R. Webb, and Mr. C. V. Jones, deserve commendation for their efficient and painstaking efforts and co-operation, in helping to develop the work of this division of the Department.

Respectively submitted,

H. D. WENDT,

In Charge Dairy Manufacturing Division.

BUTTER SCORING RULES.

BY H. D. WENDT.

(METHOD REPORT.)

1. Exhibitors are required to submit with each entry a report on blanks furnished by this department containing details of manufacture as well as the result of the exhibitor's own score and analysis for composition. Failure to submit this report bars the exhibitor from participating in any awards and the entry will receive a complimentary score only. Each exhibitor will also receive credit for the completeness and accuracy of the report. For details note Paragraph 7.

DIVISIONS AND AWARDS.

2. In awarding diplomas exhibitors must receive an average score of 92 points out of a possible 100 in the following divisions:

DIVISION A.

3. This Division embodies the commercial score based on the following standard: Flavor 45, Body 25, Color 15, Salt 10, Package 5.

DIVISION B.

4. In this Division the exhibitor scores his own entry according to the same standard used by the official judges, (Note Division A) and for each point or fraction thereof differential from the official score multiplied by three and the results subtracted from 100 constitutes the exhibitor's standing in this division. **NOTE:**—It is suggested that each exhibitor retain a sample of his butter until the date set for scoring which will be mentioned in the call before he finally records his own score, in order to have the product of the same age as the entry submitted for judgment to the department scoring. The method report containing exhibitor's score and also his own analysis for composition is mailed to the department as soon after the date set for scoring as possible.

DIVISION C.

5. In this Division the exhibitor is given credit for the accuracy of his own analysis for composition.

The same rule in arriving at the score in this division applies as in Division B, i. e., that each point or fraction thereof differential from the analysis as made by the department multiplied by three and subtracted from 100 constitutes the exhibitor's score in this division. Each exhibitor reporting results of analysis for moisture and salt will have the accuracy of his analysis based on the theory that the analysis was completed, meaning that the department will consider the curd one

per cent and the balance fat. Failure to report result of moisture test will carry a penalty of ten points on the score. Failure to report result of salt test will carry five points penalty.

DIVISION D.

6. This Division embodies the composition score based on the results of the official analysis for composition on the following standard:

Fat	81%
Water	15%
Salt	3%
Curd	1%
Total	100%

For each point or fraction thereof differential from the analysis as made by the department, multiplied by two and deducted from 100 constitutes the exhibitor's score in this division. Provided, that in case where the legal water limit of 15.99% is exceeded or the sample falls below the legal limit in this state of 80% fat, a penalty of five points for each will be applied.

DIVISION E.

7. This Division embodies the exhibitor's method report. Each exhibitor will receive credit for the accuracy and completeness of his method report on the following basis.

	Weight
1. Accuracy	50
2. Completeness	50
Total	100

FIRST SUBJECT—ACCURACY.

This embodies the accuracy of exhibitor's report on the amount of Fat churned, and butter made, and the amount of loss in manufacture based and computed on the amount of fat received and butter made, and the resultant overrun and the overrun as based on the official analysis for composition.

SECOND SUBJECT—COMPLETENESS.

This embodies the completeness of the report as to questions asked and answered.

Failure to submit method report bars the exhibitor from participating in any division except division A, but the score in that division will be complimentary only.

**PROPOSED RULES, REGULATIONS AND SPECIFICATIONS FOR
MICHIGAN STATE BRAND BUTTER.**

BY H. D. WENDT.

Section 1. APPLICATIONS.—Any person, firm or corporation desiring to use the brand or label provided for in the above named Act, in the manufacture or sale of butter, shall make written application on blanks to be furnished by the Dairy and Food Department, for a license therefor to the Dairy and Food Commissioner at Lansing, which application shall describe by location and name the creamery or factory in which such butter is to be manufactured, and give such other information as may be required. A license shall be granted to such person, firm, or corporation to use such brand or label at the factory described in the application, if on investigation, by the Dairy and Food Commissioner, his deputy or duly authorized assistants, it appears that all the provisions of Act No. 53, P. A., 1915, and the rules, regulations and specifications of the Commission have been complied with. Such license so granted may be revoked by the said Commissioner if any of the provisions of the above named Act, or of the rules, regulations and specifications of the Commission have not been complied with. Such license so granted shall not be transferable.

Section 2. LABELS.—As provided in Section 4 of the above named Act, the Dairy and Food Commissioner will furnish to those entitled to the use of the brand or label such labels or stamps or other means of imprinting such Trade-mark or brand upon the manufactured product or the receptacles containing the same.

Section 3. SAMPLES.—Any person, firm, or corporation to whom the use of the brand or Trade-mark has been granted shall whenever called upon submit a sample or samples of the butter manufactured by any such person, firm or corporation for scoring, grading or examination to the Dairy and Food Department.

Section 4. LICENSE.—The license referred to in the first section of these rules, regulations and specifications will be and is issued on the express condition that the person, firm or corporation to whom such license has been granted shall comply with the following:

a. **SANITATION.**—Maintain proper and satisfactory sanitary conditions in the plant in which the butter is made, and proper and satisfactory sanitary surroundings.

b. **RAW MATERIAL.**—That no milk or cream be received which is to be made, or is made in butter, upon which the Michigan brand or Trade-mark is to be used, that will not comply with the provisions of Act No. 222 P. A., 1913. (see copy enclosed.)

c. **PASTEURIZATION.**—That the butter shall be made from milk or cream that has been pasteurized at a temperature not less than 140° F. and shall be held at that temperature for twenty minutes, or to a temperature not less than 180° F. if not held.

d. **GRADE OF BUTTER.**—That the butter shall be of the grade of "Commercial Extra" (92-93) score, or higher, for not less than seventy-five per cent of the scorings on samples collected by the Dairy and Food Department, and while the butter is fresh.

"Fresh" butter being here defined as butter less than thirty days old from the date made, and providing same has been held at a temperature lower than 55° F. after being made. In no instance shall the butter score less than 91 points—100 being perfect—while "Fresh," according to the above definition.

e. **COMPOSITION.**—All butter upon which the State trade-mark is to be used shall contain not less than eighty per cent fat, and shall contain less than sixteen per cent water, the butter shall have a uniform salt content ranging from not less than two and one-half per cent or more than three and one-quarter per cent.

f. **COLOR.**—The color shall be of the highest June shade, uniform, and of the same shade at all seasons.

g. **ADULTERANTS.**—No preservatives (except pure common butter salt) neutralizers or adulterants shall be added to the milk or cream from which such butter is made and which is to be sold under the Michigan State Trade-mark.

h. **CREAMERY PLANT SCORE.**—The creamery or plant in which the butter is made shall receive a minimum score of 85 points—100 being perfect—embodying the following: (1) General appearance of premises, (2) Floors, (3) Drainage, (4) Refrigeration, (5) Machinery, (6) Water, (7) Raw Material.

i. **REPORTS.**—Make a monthly report to the Dairy and Food Department on blanks to be furnished by said department, not later than the last day of the month following.

j. **LABELING.**—Label and mark all receptacles containing butter upon which the State Trade-mark is to be used in accordance with the special instructions that will be issued to every creamery to whom a license has been granted with such labels, stamps or other means of imprinting the trade-mark, or such other information as may be required by the Dairy and Food Department.

k. **THERMOSTAT.**—Install in connection with all pasteurizing machinery a thermostat, or recording thermometer and file all charts for inspection, or submit same if requested to the Dairy and Food Department.

l. **TO WHOM SHIPPED.**—Whenever a creamery that has been granted a license to use the State Trade-mark changes its market or outlet for its product it shall promptly advise the Dairy and Food Department of such change, and otherwise keep the Department fully informed with regard to whom their butter is shipped or sold.

m. **CHANGE OF BUTTER-MAKERS.**—Whenever a change of butter-makers is contemplated at any creamery using the Michigan State Butter Brand Trade-mark, and before such change is made, the Dairy and Food Department shall first be advised. If a change is made without the consent of the Department, the right to use the Brand or Trade-mark shall and will at once be revoked, until such time as it takes for the new butter-maker to demonstrate that he is competent to make the grade of butter required under these rules, regulations and specifications.

VOLLEY OF FACTS REGARDING THE MARKETING OF CREAMERY BUTTER.

BY H. D. WENDT.

As we sat at our desk gathering up and recapitulating a lot of data and placing it in a row before us for comparison and final conclusions we were astounded at their extremes. Believing in applying the most effective remedy when indisposed we have concluded to "let go" a volley or two directed at an apparently cancerous condition in the present system of marketing, especially local creamery butter.

The policy of this Department in conducting educational work is to go thoroughly through the whole field. Applied to creameries, it is equally as much the function of the Department to investigate and assist the creameries in the marketing of their product as it is to help them to put out a better and more uniform quality. We of course realize that quality and market improvement go hand in hand, and with this in mind the Department has been conducting a few experiments at different creameries in the state.

At Alto, Michigan, the Creamery Company turned their plant over to one of the Department's specialists, (Mr. C. V. Jones), for a period of thirty days, and a careful survey of all the conditions that might effect the quality of the butter made, and a complete record kept of the methods of manufacture. The churnings were dated and numbered, and a sample tub retained from each churning for scoring, for the purpose of comparison, with the official scoring of the Inspector of the New York Mercantile Exchange. The scoring at the receiving end and that of the Department was done on approximately the same date: The scoring of the Inspector of the New York Mercantile Exchange resulted in his placing the butter in the class of "creamery firsts" ($89\frac{1}{2}$ to 91 inclusive), with one exception, of which I will speak later. The numerical scoring of the samples representing the same churnings by the Department Judges ranged from 90 to 92 inclusive. The samples that were scored 92 by the Department judges were also scored 92 unofficially by a well known receiver on the Philadelphia market.

A glance at the above comparison reveals perhaps as accurate work as is physically possible under the conditions. The exception heretofore referred to has reference to a shipment consisting of 21—63 lb. tubs to Armour & Company in New York. This butter was scored by the Inspector of New York Mercantile Exchange as "Seconds" (85). The samples representing the two churnings in this lot were scored "Extras" (92) by the Department judges. This somewhat disturbed our equilibrium. We decided accordingly to submit the butter to further examination by one who is considered to be one of the best butter judges in the United States. He has also been actively identified with the market end for nine years. We have reference to Mr. P. H. Kieffer, President of the firm of Gude Brothers, Kieffer Co., New York City. We have be-

fore us as we write Mr. Kieffer's score of 91 points on this same butter. It is necessary to say in this connection that the butter was approximately a week older when scored by Mr. Kieffer than when scored by the New York Mercantile Exchange, Inspector for Armour & Company, or that of the Department's scoring, and it would perhaps be conservative to allow one point for depreciation owing to this fact, which would make the scoring of the Department judges and that of Mr. Kieffer's the same; but we are desirous here of dealing only with the records as we have them before us, thus we find an actual difference between the scoring done for Armour & Company and that of Mr. Kieffer's score of 6 points, or—expressed in grades, a difference between medium "seconds" and "extra firsts." Expressed in dollars and cents we find, basing our figures on the market quotation on the date the butter reached its destination of 3 cents a pound. With the present distinction between grades it would amount to approximately 6 cents a pound.

At Nashville, Michigan, another experiment was conducted under the supervision of another of the Department's specialists, (Mr. C. R. Webb), with a view of ascertaining the effect on the quality of the butter by gathering the cream in the one case once a week and the other twice a week. The scoring of the New York Mercantile Exchange Inspector on this butter resulted in placing a score of 87 "seconds" on the butter made from cream gathered only once a week. And in the case of butter made from the cream gathered twice a week the butter was scored 92 ("Extras"). (This butter was not scored by the Department judges.) A division of this butter was made however. The part that was scored by the New York Mercantile Exchange Inspector was shipped to the firm of Egbert & Case, New York City, and paid for on the basis of 27 cents for the 87 butter and 35 cents for the 92 point butter. The other half was shipped to the firm of Frederick Lowenfels & Son, New York City, who took the lot, on the basis of 34 cents. The only deductions in either case being the freight charges. The butter shipped to Frederick Lowenfels & Son was not scored by the Inspector of the New York Mercantile Exchange. But their own comments being that they could not distinguish much difference but that they considered the butter that was officially scored by the New York Mercantile Exchange Inspector as "Extras" a little the poorest of the two.

This, in the language of the sport, is the "dope." Volumes have been written in the last few years along the line of quality improvement. The Butter-makers have been ready to adopt new and modern methods, all with a view of improving the quality. Nearly every educational institution and agency has directed its activity at the point of manufacture, which fact perhaps accounts for our present inadequate system of marketing local creamery butter, and we here ask the question "Isn't it about time that the various dairy schools and the dairy and food departments devote at least a part of their work to assisting the creameries in the marketing of their product?" We have made reference to the fact that we consider the function of the Department as well to assist the creameries in the marketing of their product as it is to assist them in overcoming quality defects at the factory end. If the state departments and institutions would provide machinery that would

give the creameries authoritative representation at the market end so that they might know when defects are reported on the quality of their butter by the receiver, whether or not such defects actually exist. It would appear from our above related experience that in the future it might be desirable to have the butter made from experimental lots of cream sold and scored on the open market in place of having the sample scored on a technical basis alone. Analyze for instance, the fact revealed in our experiment at Nashville. The creamery went to the additional expense of approximately two cents a pound butter fat in order to gather all of the cream twice a week, and based on the scoring of the inspector of the New York Mercantile Exchange and the paying for this butter by the receiver on that basis of scoring, the additional expense would prove to be a good investment, but comparing the actual dollars and cents received for half of this same butter that was shipped to the firm of Frederick Lowenfels & Son we find that they considered the butter scored 87 officially by the Inspector of the New York Mercantile Exchange better butter than that which he scored 92 and paid 34 cents less freight charges, for the whole lot, whereas in the case of the butter scored by the Mercantile Exchange a difference of eight cents a pound was made. We predict that unless the local creameries provide themselves with competent and authoritative representation, or the various states and the Federal Government provide such machinery all this talk of grading cream, pasteurizing, using starters, prohibiting neutralizers, etc., etc., might as well cease. There can be no question, allowing a liberal margin for practical market conditions, and basis of trading, that the grade of a shipment of butter can be quite accurately determined to the satisfaction of all concerned if the party who is selling it is represented, as well as the party who is buying it. We thoroughly believe that the quality of American creamery butter must be considerably improved, both in point of flavor and uniformity in its mechanical construction. That the present condition of especially local creamery butter as it arrives on the market tempts the buyers to take advantage of same for their own gain, is evident in the light of our investigations, and that conditions are not even worse should not be wondered at. What creamery after reading our experience at the two points mentioned in this bulletin will say that they do not need representation at the market end in disposing of the product of their plant.

Our design in publishing this bulletin is not so much to offer any tangible suggestions of how this machinery may be provided and put into operation, as it is to get the creameries to realize the necessity of it, and it is for that reason that we have been more specific than most material heretofore published along this line. Generalities do not tend to bring about action and that is exactly what is needed at the present time, but specific material should bring about action by those who are in a position to act, and the combined co-operation of those who are in a position to bring about results is needed.

BY JAMES W. HELME.

There are all grades of butter in eastern markets which bring all the way from 15c to 33c a pound. It therefore behooves the creameries of the state, if they would make the most of their opportunity, to produce

the quality of butter known in the New York market as "extras." The difference between "Extras" and "Firsts" is something like 3c a pound.

Last month two expert creamery inspectors were sent down to New York and Philadelphia to watch the incoming of Michigan butter, see it scored and ascertain which creameries were receiving the highest prices and the reason for some being lower than others.

In these markets they watched the incoming of much Michigan butter, and they got much information as to the difference in price and quality. For instance, Litchfield creamery was sending in butter which scored as "Extras." The Alto Co-operative Creamery, which is well organized, had butter that scored as "Firsts," which meant 3c a pound less than if it scored "Extra."

The next question was: "Why does the Litchfield Creamery score better than Alto?" Careful investigation was made of conditions of receiving cream at the two plants and the inspectors found that at the Litchfield creamery a very rich cream was received ranging from 35 to 40 per cent, while the Alto creamery was receiving cream much thinner, ranging from 20 to 30 per cent. The thinner the cream the more casein in cream, the more matter there is which is subject to putrefaction and thus the cream spoils much quicker before it is churned.

Some other causes were also found which it was thought might affect results. Creamery experts of the department are now engaged in educational work among patrons of the Alto creamery, and they hope by this educational work to raise the grade of Alto butter from first to extras. If they can do this, it means \$9,000 a year extra money to the patrons of the Alto creamery, and this situation applies to all the creameries in the state. Much can be done to raise the quality of the butter.

Incidentally we might mention another instance showing how easy it is for patrons not to receive a good price for their product. Last winter a co-operative creamery was established in one of the central towns of the state. It started off splendidly and had a good butter-maker who was making "Extras" and the prospect looked bright. After some months the butter-maker asked for a raise of \$10 a month on his salary, which was refused. The board of directors of the creamery concluded that almost anyone could make butter and run the creamery, so that a new and cheaper butter-maker was installed. Butter from this creamery has suffered a great deterioration, and a tub of the same recently scored showed that it will not bring to exceed 20c a pound, which, if continued, means a large loss to the patrons of that creamery. The success of the co-operative creamery depends jointly upon the patrons and the butter-maker. No butter-maker, however good, can make the extra grades of butter out of poor cream. On the other hand, a poor butter-maker, who has had little experience, and does not understand the practical side of things, can make a lot of poor butter out of good cream. The patrons of the factory should see that every patron takes care of his cream, so that a good raw material is produced and then they should not try to force any small economy by hiring a cheap and untried butter-maker. It will prove to be very expensive in the end.

"BRASS TACKS."

BY H. D. WENDT.

The Titanic disaster resulted in greater efficiency in the protection and safety of ocean travel. Likewise in industrial affairs, greater efficiency results when something occurs that brings inefficiency to the surface and then it is that we appreciate that which we have failed to foresee.

It is now evident to those engaged in the production and manufacturing of dairy products, that two of the great essentials that go to make up a successful business or industry have been largely overlooked, namely, Quality and Efficiency. The reduction of the tariff on dairy products is bound to have its effect, at least insofar as it makes ours practically a world's market and thus causes butter and other dairy products to remain nearer to their normal value. Therefore, the dairyman will be forced to greater efficiency in production to offset a lower range of values in the finished product. The following table is illuminating, showing the relation the cow bears to the cost of producing her butter fat at the present cost of feed.

Production of cow.	Cost per lb.
200 lbs.	27.1
250 lbs.	21.7
300 lbs.	18.1
350 lbs.	15.5
400 lbs.	13.5

As these figures are based on a year's average, it is apparent that the dairyman is not getting rich when we take into consideration that the average production of Michigan's cow population is much less than 200 lbs. butter fat a year. The average production per cow in Denmark is approximately 100 lbs. butter fat a year more. Thus we can see the opportunities open for greater efficiency.

In the quality of the finished product, so far as it relates to butter, we have been shamefully negligent, brought about through our greed for quantity rather than quality in business. Several hundreds of thousands of dollars are being lost to the dairy and creamery industry every year, the result of mere lack of efficiency. For illustration: An entry of butter received recently for the Department's educational scorings was cut six points on color (result of incompetency), resulting in a loss figured on market basis at that time of \$28.20 to the creamery on a churning of 470 pounds. It is to check this enormous drain that this Department has decided on a campaign that has for its object the fathering of dairy and creamery organizations throughout the state and which will have for its purpose the establishing of efficiency departments. These organizations are to be composed of not to exceed twenty local creameries (co-operative or individual) who will organize

for the purpose of creating a general efficiency department through which to raise the general efficiency in the production and manufacturing of dairy products for its members, same to be maintained by a small uniform tax upon those directly benefited. A brief synopsis of the purpose of these associated creameries is:

1. Raising the quality of the raw material.
2. Perfecting and raising the efficiency in the marketing of the finished product.
3. Greater efficiency in factory operations.
4. Buying of supplies collectively instead of individually.
5. Assisting the producer in bringing about greater efficiency and economy in production on the farm.

BY H. D. WENDT.

In February, 1914, in a special bulletin entitled "Brass Tacks" we announced that this Department had adopted a paternal policy towards the organization of creamery associations in various sections of Michigan, composed of not to exceed twenty local and co-operative creameries who would associate themselves for the purpose of establishing a General Office with a General Manager in charge who was to devote his entire time acting in the capacity of General Business Manager, for these ten or more creameries.

The attitude of the creameries toward the plan we have found to be largely in accord with our views but it developed upon the writer to further develop the plan before it could be finally presented to any set of creameries, but this is now about to happen. We found many details to be ironed out in connection with the proposition but substantially the plan as it now stands is as follows:

The writer in conceiving the plan realized that the main points in connection with the operation of local and co-operative creameries was the poor business management, the inefficiency in manufacture and the lack of uniformity in the product, making it difficult to market same to the best advantage. There are of course many things that can be done when ten or twenty creameries associate themselves and collectively employ a General Business Manager.

SOME THINGS FOR THE GENERAL OFFICE TO DO.

1. The unification of the product of all the creameries in the group. The lack of uniformity of the product of small creameries is no doubt the main cause for the very unsatisfactory conditions of marketing the product to the best advantage.

2. Improving the quality of the raw material, to be attained by a comprehensive grading system and paying for same accordingly.

3. Greater efficiency in manufacture. The information gained in the educational scorings conducted by this department indicate where thousands of dollars can be made annually by stopping numerous leaks occurring in nearly all creameries in the state. To mention just one item will suffice. The average amount of salt added to the butter by the creameries participating in the scorings is about 6%. The average amount retained is approximately 2.5%, a loss of over 70%. This as

compared with the result obtained in a large centralized factory, the facts of which the writer is in possession of of less than 20%. Not only the loss of the salt is to be considered in this matter, but lack of uniformity of the product is perhaps the big item.

4. **Buying Supplies:** The buying of supplies collectively would mean a big saving in the course of a year, by reason of ability to buy intelligently and in quantities. There are many other matters to receive the attention of the General Manager that are so evident they need not here be mentioned.

REVENUE.

The revenue necessary for this work is to be derived by a uniform tax upon the number of pounds of butter fat received by each member of these associated creameries, of one mill. Everything taken into consideration, it is not difficult to see where at least a cent a pound butter fat can be gained under such management, which would mean an additional income on every hundred thousand pounds fat received, after deducting the pro rata share of the expense of maintaining the general office of \$800.00 per creamery a year.

LOCAL UNIT.

The plan as developed thus far won't in no wise disturb the local unit, meaning that the present secretaries and managers would continue to act in the capacity of local secretaries and managers.

CONCLUSION.

Much has been done and is now being done by state colleges and the federal government to point out where improvement may be made in production and marketing, but results therefrom are necessarily slow due to lack of organization and machinery to properly utilize these advantages. We have been going up and down this country preaching the advantages of the local creamery to the industry generally, but from the beginning this family of local and co-operative creameries have become separated like a covey of young quail who if left alone without paternal guidance will perish. So it becomes necessary to mobilize and call together these separated creameries and put them on an efficient fighting basis and our great dairy industry will again come into its own.

IF LINCOLN WERE ALIVE TO-DAY.

BY H. D. WENDT.

A few score years ago our fathers brought forth on this continent a new Industry (Dairying) conceived in quality and dedicated to become the backbone to agriculture.

Now we are engaged in a great economic war, testing whether that industry so conceived and so dedicated can long endure. We have

reached a crisis in that war. We have come to the point where we must decide whether our great American Dairy and Creamery industry can continue in its present form, and thus allow our foreign neighbors to capture our markets, or whether that industry shall be so regulated by law (possible of fulfillment) and a mutual Quality Basis established that shall result in our reclaiming our former reputation for American Creamery Butter and other dairy products.

It is altogether fitting and proper that we should discuss this. But in a large sense we should discuss it only with full realization of its economic effect, without bias, and with careful deliberation upon complete survey of the facts. The brave men living and dead who struggled to perfect the science and art of Butter-making have dedicated to society a food product that is known to all civilized mankind.

The world will little note nor long remember what we say but it can never forget what they did. It is for us who remain to dedicate ourselves to the great task remaining before us, that we here highly resolve that their efforts shall not have been in vain—that this industry (Dairying) shall have a new birth of freedom and that present conditions (Poor Cream) shall perish from our land.

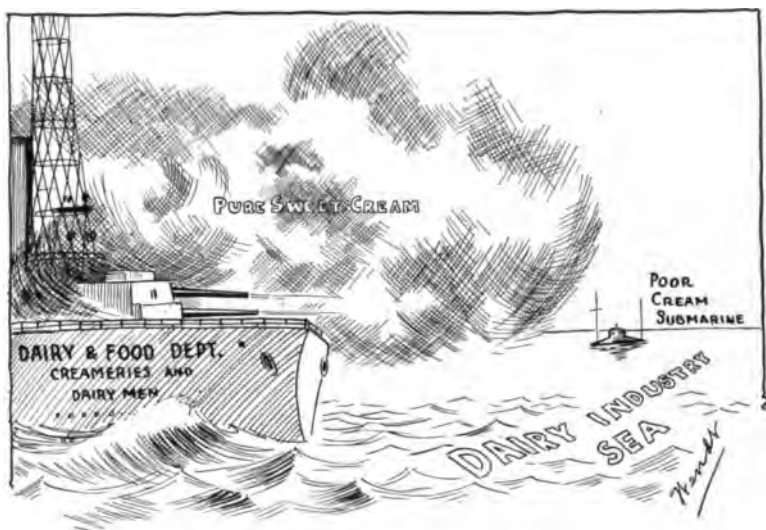
Thus we quote in parallel of the famous Gettysburg address of President Lincoln, designed as the opening gun for better milk and cream and better Michigan butter.

Ninety per cent of the butter reaching our markets is below the top grade and selling from one to eight cents below the top price, meaning a loss of thousands of dollars annually to the Cream producers and the industry generally. And when we stop to consider that milk is by nature perfect when drawn, and that present conditions are entirely due to our method of handling, we can understand why the consumers have "Declared War" on Poor Butter. We are going to offer our "Good Offices" and act in the capacity of mediators to bring about a relation between the Factory and the Producer that will result in regaining our lost laurels.

BY H. D. WENDT.

Are you smelling smoke? Maybe not, due to modern smokeless powder, but the battle is on. This poor cream problem has become so vast, and with so many influences involved, that we find it difficult to cope with. We fumble through our verbal kit for spikes sufficiently powerful to nail home the enormous fact and find that our most comprehensive adjectives are just tacks. However, we are going to take the critter by the horns and periodically fire a broadside that will crumble to dust in time the strong forts of the enemy. We refuse to stand idly by and allow this submarine (POOR CREAM) to continue to mine this important dairy industry. We have still a few powerful battleships left and we are going to drag this problem out to the open sea and fight it out.

Who's to blame? The nations at war in Europe are each fixing the cause of the war on the other, and we might attempt to fix the cause of the poor cream problem, but would that solve it? No, certainly not, any more than it is stopping the war. What we want to seek out



is the effect it has on the industry and what it is costing us in dollars and cents. We would not think of leaving our apples or potatoes out until they had become frozen or decayed, neither will we allow our cream to get old, sour and stale when we once appreciate what it is costing us. The product of any creamery in the long run brings what it is worth. If the butter is poor it is the farmers and not the creameries who suffer the loss. There is a mutual relation between the patrons of a creamery and the management of it that cannot be broken without the farmers suffering loss. In a few other lines of business is co-operation so essential to success of either party. Nine times out of ten the cause of poor butter is the result of poor milk or cream.

BY H. D. WENDT.

If a man can write a better book, preach a better sermon, or make a better mouse trap than his neighbor, though he build his house in the woods, the world will make a beaten pathway to his door.

—Emerson.

Truer words than those above quoted were never spoken. Although many of the local co-operative and individual creameries are built in the woods, the world is making a beaten pathway to their door, for the reason that they are making a better article than their neighbor. Those creameries that find it hard to market their butter satisfactorily under present conditions are the ones that are making a poor grade of butter.

There can be no doubt but what the present system of marketing a large part of the local creamery butter can and must be improved, but it is very essential that all efforts to remedy present conditions be based on sound principles, and that we lay the right foundation on which to build. This foundation must be Quality.

Many butter dealers still advertise their product as "Elgin" which today means butter made anywhere in the United States, and may mean any grade or quality. If a federal law had been passed providing a brand for "Elgin" quality butter when that name stood for butter of high quality, and specifications provided so that only butter made under certain sanitary conditions from pure sanitary high grade cream, permitted to use the brand, and rules established whereby the identity of the "Elgin" brand butter would have been maintained to the ultimate consumer, he might be in a position today to know where butter such as above described might be had.

I do not want to indulge in sketching air castles but it is evident that we have not been looking into the future enough in the past. The State Brand feature soon to be inaugurated in Michigan offers an avenue which, if rightly organized and controlled, should be of material assistance to creameries making butter complying with State Brand butter specifications in solving their marketing problems.

Investigating butter marketing conditions in Philadelphia and New York City recently, the writer found very little of the local creamery butter reaching those markets where the packages contained any mark of identification showing to what churning any particular tub of butter belonged. If all churnings were numbered and a record kept of each,

defects reported by the receiver could then be verified. Also creameries sending butter to the monthly scorings conducted by the state could request a market score officially or unofficially and thus compare results, as it is only by comparison that we are able to improve on each others work and by so doing aid progress.

SALT TEST FOR BUTTER.

BY H. D. WENDT.

In connection with the educational scorings conducted by this Department, we find that comparatively few creameries are equipped to make salt tests of their butter.

The purpose of this bulletin is to describe the method used in testing butter for salt, together with a list of the necessary solutions and equipment required and the importance of its use.

IMPORTANCE.

In connection with our butter scorings in the future as in the past, credit will be given for accuracy of analysis for composition (moisture and salt.) The rules provide that where a butter-maker makes a moisture and salt test of his butter, his score will be computed on the theory that the analysis for composition was complete meaning that the curd will be considered 1% and the balance fat. A penalty of five points on salt and ten points on moisture is applied for failure to report results of these tests on the score given for accuracy of exhibitor's analysis. It is fully as important to *know* the amount of salt each churning contains, as it is to know the amount of moisture. Salt may easily vary from 1 to 2 per cent from one churning to another if only the sense of taste is used as a guide. This method of determining the salt is very inaccurate for the reason that the salt varies with the moisture. In other words, butter containing 15% moisture and 3% salt to the sense of taste is the same as butter containing 12 or 13% moisture and 2% salt. For this reason from a financial standpoint, a creamery may easily lose 1% on their overrun due to improper control of the composition, meaning a loss to the average creamery of from 3 to 4 hundred dollars a year.

APPARATUS REQUIRED.

- 1 50 cc. Burette graduated in tenth cc. (most creameries already have this in connection with their acidity test).
- 1 25 cc. pipette.
- 1 250 cc. Graduated cylinder.

CHEMICALS REQUIRED.

A silver nitrate solution containing 14.525 grams pure silver nitrate per litre distilled water (1000 cc.).

A 10% solution of Potassium Chromate (Indicator).

The above described apparatus and solutions may be obtained from the regular creamery supply houses.

METHOD.

Sampling:—Samples of a number of different parts of the tub or churn should always be taken and placed in a suitable container, then placed in water at about 100° F. The sample should then be thoroughly mixed with a spoon. Too much stress cannot be laid on careful sampling and mixing the samples, for upon this the accuracy of the results depend.

Weighing the charge: Carefully weigh out 10 grams of the sample and after determining the per cent of water by one of the reliable methods, transfer the balance of the sample at once to a glass jar or bottle, using 250 cc. of hot distilled water from some steam pipe and thoroughly mix. After allowing same to cool for a few minutes, draw out 25 cc. and allow same to flow into an ordinary white tea cup. Add about 5 drops of the indicator, then fill the 50 cc. burette to the 0 mark and slowly allow the solution to flow into the sample for testing, constantly shaking or stirring same until a permanent red color appears. The solution is of such strength that 1 cc. represents $\frac{1}{2}\%$ of salt. As an example, if the burette reading showed 6.4 cc. solution used, then 6.4 divided by 2, 3.20% would be the amount of salt in the sample of butter. Then if the result of the moisture test was 15% and the curd 1% (estimated) the balance or 80.80% would be fat, and thus complete the analysis for composition. The additional time consumed to make the test for salt should not exceed 5 minutes. The cost of the apparatus aside from the solutions and the burette, which most creameries already have, should not exceed two dollars. If a creamery is not already equipped to make this test, it can not afford to delay the matter any longer.

COTTAGE CHEESE AND OTHERS OF THE NEUFCHATEL GROUP.

BY C. V. JONES.

Nearly every American is familiar with the home-made cottage cheese. The making of this type of cheese in a commercial way has never gained much headway because of its perishable nature. To this same group belong the Neufchatel and cream cheeses. Each of these kinds are made in many ways and are good or bad according to the skill of the maker. Neufchatel and cream cheeses are marked commodities and considerable interest has been manifested in their manufacture.

For a number of years the Storrs Experiment Station, in co-operation with the Federal Dairy Division, has been studying various types of cheese under the leadership of Dr. Thom. Bulletin 78 of the Storrs, Connecticut, Experiment Station gives a review of the work with the

Neufchatel group of cheeses. The following is an extract from this bulletin:

Cottage cheese, in the strict sense, has been produced from time immemorial upon the farm. For this purpose the milk is allowed to stand until it thickens by natural souring. It is then skimmed. After skimming the curd is heated, either by placing the vessel over the fire or by the addition of hot water to the mass. Wide variations of practice are found. Skimmed milk is often substituted for whole milk, and lactic starters are used to control the souring. The milk is set at 70° F. and then heated to 90° to 105° and held until the liquid is clear. The curd is hung up in bags and finally pressed. Salt is added to about one per cent and frequently cream is worked into the mass to add to its attractiveness.

The essential feature of cottage cheese process is the expulsion of the whey by heating the milk after thickening. The name, cottage cheese, has been recently used in the sense of any skimmilk cheese with the flavor of sour milk thus confusing this with the Neufchatel process.

Cheeses made by the two processes typically differ in that the heating used in the cottage cheese process hardens the particles of curd, giving a grainy texture to the mass. The American Neufchatel process is a development of the French process under American factory conditions. Thirty pounds of milk is the unit of manufacturers in the American factory. The standard shot-gun can is used to set the milk.

NEUFCHATEL PROCESS.

The milk must be fresh, clean, and free from gas and taint. For high grade cheese the milk should not be over 12 hours old. In no case should the initial acidity be higher than 0.20%. Milk testing 4% or higher in fat will produce the best cheese.

A slow development of clean acid flavor is demanded. Two cubic centimeters of a good active starter are used to each 30 pounds of milk. A very satisfactory product may be made if milk is clean, without the use of any starter. Too much or too active starter produces acid too rapidly and gives a rough, mealy curd.

The temperature of setting should be from 70 to 75 degrees F. and $\frac{1}{3}$ c.c. of rennet used for each 30-lb. can. The rennet should be diluted in a cup of cold water and the milk stirred for a few minutes after it is added. Add the starter, bring the milk to about 72° F., and add the rennet. The milk curdles within the first few hours but is allowed to stand from 12 to 18 hours.

Curd of this kind is drained at a temperature of about 60 F., lower rather than higher. The air should be very moist to prevent drying of the curd. The curd should remain in the draining racks for twelve hours.

Standard practice provides a rack for each 30-pound can of curd.

The racks are rectangular, 13 inches wide, 36 inches long, and 10 inches deep. The materials required for the rack are 4-corner posts $1\frac{1}{2} \times 1\frac{1}{2}$ inches, 13 inches long; 9 strips, $1 \times \frac{3}{8}$ inches, 36 inches long; 2 strips $1 \times \frac{3}{8}$ inches, $12\frac{1}{4}$ inches long, notched to receive the bottom

slats. All are made from pine. This makes a rack with three slats on each side and end and three on the bottom. A cloth is fastened upon each frame and the contents of each can be poured into each cloth. The best grade of cheese cloth is used. For small lots the curd may be hung up in the cloth to drain without the use of racks. The curd should remain in the draining cloths as before indicated for about twelve hours.

At the end of the draining period the curd is cooled on ice or in a refrigerator. Frequently the bags are thrown upon cracked ice and left over night.

After cooling, the bags of curd are put into a press where light but gradually increasing pressure is applied to reduce the whey content further without too much loss of fat. Whey at this point should contain about 0.60% acid or higher. Just here is the danger point in the whole process. With high fat cheeses too rapid pressure causes large loss of fat. This and the desire for large yield tempt the maker to stop pressing too soon. The degree of sourness to taste seems to be directly proportional to the percentage of water left in the cheese. Too high percentage of water makes the product too soft to stand handling in the market.

Upon a small scale an improvised press may be used, for example, a stone, a pail of sand or a lever press.

Several hours of pressing are required to bring the curd low enough in water content. In this condition the curd should appear as flat cakes which feel dry and tough in contrast to the mushy condition in which it went into the press.

When properly drained the cakes of curd are worked by hand or machinery into a smooth, buttery consistency. To obtain this texture many kinds of apparatus have been used, such as potato mashers, numerous brands of butter workers, rollers, or meat grinding machinery. Fine salt at the rate of $1\frac{1}{2}$ pounds to the 100 pounds of curd is added while working.

Cartons, screw-top jars, or jelly glasses with tin covers may be used to pack for market, but usually various sizes of packages wrapped in parchment paper surrounded with tinfoil or in lacquered tinfoil alone are used.

Milk containing 4% fat will yield from 12 to 14 pounds per 100 pounds of milk. In using cream testing about 8% fat a yield of 17 pounds may be obtained.

Four per cent milk made into Neufchatel cheese will average at retail about \$3 per hundred. The retail price is usually from 25 to 30 cents per pound.

This kind of cheese should be eaten within one to two days after moulding.

Skimmilk may be made into a cheese by this same process and is more acceptable than the ordinary cottage cheese.

INSPECTIONS—HOW REPORTED.

Inspections of creameries, cheese factories, farm dairies and city milk supply are reported in the bulletins issued by the Department. By

INSPECTION

Name.	Postoffice.	Patron of.	Total No. of cows.	No. of cows giving milk.	Breed.
Wexford County, May:					
C. O. Dahlquist.....	Cadillac.....		7	7	Grade.....
Harry Zelma.....	Cadillac.....		6	4	Grade.....
Alexander Plunkett.....	Cadillac.....		6	6	Grade.....
T. R. Alexander.....	Cadillac.....		7	7	Grade.....
Nelson Brothers.....	Cadillac.....		41	32	Jersey, Grades..

INSPECTION OF

Name.	Location.	Owner or manager.	Yearly milk receipts, pounds.	Make cheese, pounds.	Style.
Jackson Co., May:					
Concord Cheese Factory.....	Concord.....	Jas. Hume.....			Mich. Soft....
Mason Co., May:					
Fresnoil Cheese Factory.....	Fresnoil.....	Brown and Palmer.....			
Ingham Co., June:					
Williamston Cheese Factory.....	Williamston.....	Detroit Creamery Co.....	1,440,000	144,000	Mich. Soft....
Gratiot Co., June:					
Carson City Cheese Factory.....	Carson City.....	Frank Miner.....	1,250,000	125,000	Mich. Soft....
Lenawee Co., June:					
Addison Cheese Factory.....	Addison.....	Addison Cent. Sup. Co.....	1,495,971	144,176	Michigan.....
Onsted Cheese Factory.....	Onsted.....	L. R. Connors.....	2,140,000	201,000	Mich. Cheddar

way of explanation the following pages are reprinted from a monthly bulletin. These bulletins, containing reports of inspections as shown on the pages reprinted, will be mailed to parties applying for same.

OF DAIRIES.

Ration.	Stable.			Cows kept clean.	Water.
	Clean and sanitary.	Ventilation.	Light.		
Hay and corn fodder	No.	Windows	No.	No.	Tubular well.
Alfalfa clover	Fair.	Windows	Fair.	Yes.	Tubular well.
Hay and roots	Yes.	Windows	Fair.	Yes.	Tubular well.
Hay and corn fodder	Yes.	Windows	No.	Yes.	Tubular well.
Hay and ensilage	Fine.	Windows	Yes.	Fine.	Tubular well.

CHEESE FACTORIES.

Cheesemaker.	Sanitary surroundings.	Equipment.						Quality of milk.	Starter.
		Vats.	Presses, gaug.	Curd mill.	Whey tank.	Rennet test.	Boiler.		
James Hume.	Good	2 good	1	None	Clean	None	6 H. P.	Fair.	
Brown & Palmer.	Good	1 fine	1	Pohl	Good		12 H. P.	Good	
S. Bivins.	Good	2 clean	1	None	Clean		8 H. P.	Fair.	Starter.
Frank Miner.	Good	2 fine	1		Good		10 H. P.	Fine	
F. Smith.	Good	2 clean	0	None	Clean		10 H. P.	Fair.	
L. R. Conners.	Fair	2 clean	2	None	Fair		16 H. P.	Fair.	

INSPECTION OF

Name.	Location.	Owner or manager.	Yearly milk receipts, pounds.	Milk butter, pounds.	Sanitary surround- ings.
Arenac Co., May:					
Vasold Bros.	Bay City	Evert Dougherty			Good
Henry Creamery	Omer	H. Proulx			Good
Barry Co., May:					
A. M. Smith Co., Creamery	Nashville	A. M. Smith Co.			Good
Nashville Cooperative Creamery	Nashville	Nashville C. Op. Cry.			Good
Calhoun Co., May:					
Milk Producers Co.	Battle Creek	F. W. Sullivan	4,800,000	30,000	Good
Raymond & Rice Milk Depot	Battle Creek	Raymond & Rice	1,800,000		Good
Athens Creamery	Athens	J. J. Snyder		104,000	Good
Athens Cream Station	Athens	Jackson City Cry.			Good
Marshall Creamery	Marshall	Marshall Cry. Co.		108,000	Good
Marshall Cream Station	Marshall	Jackson City Cry. Co.			Good
Dewitt Cream Station	Dewitt	Victor Clavey			Good
Dickinson Co., May:					
Norway Creamery Co.	Norway	F. Copeland			Good
Eaton Co., May:					
Fox River Butter Co.	Grand Ledge	Fox River Butter Co.			Good
Boyland's Cream Station	Grand Ledge	Boyland Cry. Co.			Fair
Towars Cream Station	Grand Ledge	Towars Wayne Co. Cry.			Good
Towars Cream Station	Eaton Rapids	Towars Wayne Co. Cry.			Good
A. M. Smith Creamery	Eaton Rapids	A. M. Smith Co.		559,000	Good
C. O. Merritt Cream Station	Eaton Rapids	C. O. Merritt			Good
Towars Cream Station	Charlotte	Towars Wayne Co. Cry.			Good
A. M. Smith Co. Cream Station	Olivet	A. M. Smith Co.			Good
Towars Cream Station	Olivet	Towars Wayne Co. Cry.			Good
Olivet Cream Station	Olivet	Durand Cry. Co.			Fair
Mulliken Cooperative Creamery	Mulliken	Mulliken Coop. Cry.		84,399	Good
Mulliken Cream Station	Mulliken	Fox River Butter Co.			Good
Sanitary Milk Co. Cream Station	Sunfield	Sanitary Milk Co.			Bad
Fox River Butter Co.	Sunfield	Fox River Butter Co.			Good
Boylands Cream Station	Sunfield	Boyland Creamery Co.			Good
Sunfield Cream Station	Sunfield	W. T. Leonard Co.			Fair
Cloverleaf Creamery	Charlotte	W. T. Leonard Co.		135,910	Fair
A. M. Smith Cream Station	Charlotte	A. M. Smith Co.			Good
Grafton Co., May:					
C. A. Zubler	Breckenridge	C. A. Zubler			Good
Swift & Co.	Breckenridge	Homer Weed		40,000	Good
Ingham Co., May:					
Towars Cream Station	Mason	Towars Wayne Co. Cry.			Good
Mason Cream Station	Mason	A. M. Smith			Good
Leslie Butter Co.	Leslie	E. J. Kniebeler		170,000	Good
Jackson, Co., May:					
Concord Crystal Creamery	Concord	E. S. Wilcox		169,100	Good
Fox River Butter Co.	Rives Junction	Fox River Butter Co.			Good
Rives Junction Cream Station	Rives Junction	Jackson Farm Pro. Co.			Fair
Kalamazoo Co., May:					
H. H. Snyder Creamery Station	Climax	H. H. Snyder			Good
Climax Creamery	Climax	Arthur Gingell		110,000	

DAIRY AND FOOD COMMISSION.

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CREAMERIES.

[illegible]

INSPECTION OF CITY MILK SUPPLY.

Name.	Health of herd and its protection.	Cleanliness.	Construction and care of utensils.	Health of employee and manner of milking.	Handling of milk.	Total.	Sanitary surroundings.	Quality of milk.			
								Per cent butter fat.	Lactometer.	Total solids.	Solids not fat.
Demmons, March:											
Jacob Manley	88	85	90	90	100	453	Good	4.4	33.	12.53	9.13
Ishpeming, March:											
Jno. Mattson	77	75	85	90	85	412	Medium				
Chas. Rowe	73	75	70	85	85	388	Poor				
Jno. R. Stokoe	81	80	85	90	85	421	Good				
Areil Larson	88	80	70	90	85	413	Medium	4.2	32.	13.04	9.84
Thos. Richards	90	85	95	95	100	465	Good	5.0	32.5	14.125	9.125
Andrew Hansen	85	85	85	90	100	445	Good	3.8	31.	12.31	8.51
H. W. Elson	85	80	95	90	85	435	Good				
Jas. Roberts	88	85	85	90	85	433	Good	4.0	31.	12.55	8.55
Arret Flaa	90	80	90	90	85	435	Good	4.2	32.	13.04	9.84
Mrs. E. Grund	90	85	85	90	85	453	Good	4.0	31.	12.55	8.55
Fred Barrett	82	85	85	90	85	427	Good				
Laurium, March:											
Fred Mahews	85	75	80	90	85	415	Medium	3.8	33.	12.81	9.01
Peter Pepin	85	70	80	90	85	410	Medium	3.8	32.	12.56	8.76
Chas. Landstrom	95	90	90	90	100	455	Good				
Erie Korbi	80	70	80	90	85	411	Medium	3.4	30.	11.58	8.18
Erie Nicoli	86	80	70	90	85	411	Medium	4.4	32.	13.24	8.84
Nick Oysti	88	75	70	90	85	408	Medium	3.2	30.	11.34	8.14
Robt. Saari	83	80	70	90	80	403	Medium	3.6	32.	12.32	8.72
E. J. Moyle	86	75	75	90	80	406	Medium	3.6	30.	13.02	8.34
Henry Leviaka	86	75	75	90	85	411	Medium	3.6	32.	12.32	8.72
Christ Travarrow	85	85	75	90	85	420	Medium	4.2	30.	12.54	8.34
Frank Clere	90	85	85	90	85	435	Good	4.2	33.	13.29	9.09
Henry Trythal	83	70	80	90	85	408	Medium	3.2	32.	14.0	9.01
Jos. Tomesek	83	65	75	80	85	388	Poor				
Arthur Symons	78	60	70	80	75	363	Poor				
John Millimaki	86	80	75	85	85	411	Medium				
Berrien Springs, April:											
Geo. Dean	85	90	60	90	85	400	Medium				
Gladstone, April:											
Mrs. M. Skelton	90	90	90	90	100	460	Good				
Alex Williamson	90	75	90	90	100	445	Medium				
C. E. Stearns	83	68	90	90	95	426	Medium				
Marquette, April:											
Peter Stuer	85	80	80	85	90	420	Medium	2.7	31.	12.19	8.49
F. H. Vandenboom	100	85	95	95	100	475	Good	4.1	32.5	13.045	8.945
Max Quandt	86	75	80	90	95	426	Medium	3.2	21.5	11.715	8.515
C. Jensen	90	70	75	90	100	425	Medium	3.2	31.5	11.715	8.515
H. Bergh & Sons	95	90	90	95	100	470	Good	3.4	30.	11.65	7.60
Triffley Largness	88	90	90	90	100	458	Good	3.5	30.	11.70	8.20
C. E. King	95	85	95	95	100	470	Good	3.8	33.	12.81	9.01
S. G. Nelson	83	75	80	85	85	408	Medium				
Louis Guelf	90	80	90	95	100	455	Good				
Anton Fanbender	82	80	90	90	90	432	Medium				
Niles, April:											
Mets Bros	90	97	85	80	97	449	Good				
Ontonagon, April:											
Zuelke & Wagner	95	85	95	90	85	440	Good				

TEST OF INDIVIDUAL COWS DURING THE MONTH OF FEBRUARY.

The head of this Department determined to take up some samples of milk from individual cows and test the same for Butter Fat and Solids.

The report of the State Analyst which follows shows the results of these experiments. In each case the sample represents an individual cow, sample being taken by one of the Inspectors of this Department from the milk pail at the time of milking. Samples were all taken during the month of February.

When these samples arrived at the laboratory, a portion of each was submitted to the Bacteriologist of the State Board of Health, for examination as to germs of tuberculosis; no germs were found.

The following is the State Analyst's detailed report:

February 26, 1915.

Hon. James W. Helme, State Dairy and Food Department, Lansing, Michigan.

Dear Sir: Following are the analyses of the samples of milk collected from Holstein herds in Livingston County, by Inspector Helber and analyzed in this laboratory.

MILK FROM INDIVIDUAL COWS OF THE REGISTERED HOLSTEIN HERD OF M. J. McPHERSON, HOWELL, MICHIGAN.

Butter fat.—Per cent.	Total solids, per cent.
3.5	11.23
3.5	12.16
4.25	12.56
3.2	11.61
3.3	11.24
3.8	12.98
4.1	11.62
3.6	11.68
4.3	13.13
3.6	12.17
3.45	11.18
3.3	11.17
3.0	11.44
3.0	11.36
3.4	11.59
2.6	10.45
2.6	10.7
3.1	11.23
3.0	11.61
3.2	11.48
3.6	11.83
3.0	10.85
2.7	10.99

	Butter fat, per cent.	Total solids, per cent.
Maximum	4.3	13.13
Minimum	2.6	10.45
Average	3.35	11.58

STATE OF MICHIGAN.

MILK FROM INDIVIDUAL COWS OF THE REGISTERED HOLSTEIN HERD OF REX
REED, HOWELL, MICHIGAN.

Butter fat.—Per cent.	Total solids, per cent.
3.7	12.44
3.8	11.84
4.1	12.83
2.7	11.49
3.5	12.30
3.1	11.15
3.2	12.25
3.8	12.50
3.5	11.65
3.4	12.44
3.4	12.48
3.6	12.09

	Butter fat, per cent.	Total solids, per cent.
Maximum	4.1	12.83
Minimum	3.1	11.15
Average	3.48	12.12

MILK FROM INDIVIDUAL COWS OF THE REGISTERED HOLSTEIN HERD OF FRANK
EAGER, R. D., HOWELL, MICHIGAN.

Butter fat.—Per cent.	Total solids, per cent.
2.9	11.61
3.6	11.90
3.6	12.29
3.0	11.51
3.5	11.96
3.3	11.12
2.2	10.32
3.8	12.73
2.8	10.34
2.8	11.54

	Butter fat, per cent.	Total solids, per cent.
Maximum	3.6	12.29
Minimum	2.2	10.32
Average	3.15	11.53

MILK FROM INDIVIDUAL COWS OF THE REGISTERED HOLSTEIN HERD OF JOHN
WORTHINGTON, R. D. 7, HOWELL, MICHIGAN.

Butter fat.—Per cent.	Total solids, per cent.
3.9	13.25
3.0	11.45
2.9	11.85
3.8	13.08
3.2	11.20
2.9	10.58
4.9	14.59
4.1	12.52
3.7	12.63

	Butter fat, per cent.	Total solids, per cent.
Maximum	4.9	14.50
Minimum	2.9	11.20
Average	3.6	12.35
ALL SAMPLES RECEIVED.		
Maximum	4.9	14.59
Minimum	2.2	10.45
Average	3.39	11.89

Laboratory of the State Board of Health reports:

All samples were tested for T. B. C. germs. None were found.

Very respectfully,

F. L. SHANNON,

State Analyst.

CREAMERIES AND CHEESE FACTORIES

REGISTERED CREAMERIES, CHEESE FACTORIES, SKIMMING STATIONS, RECEIVING STATIONS, CONDENSED MILK FACTORIES AND MILK DEPOTS.

FOR THE REGISTRATION YEAR BEGINNING APRIL 1, 1915.

ALCONA COUNTY.

Name.	Owner or Manager.	Postoffice.
Glennie Milk Depot,	Jos. Solomon,	Glennie.
Mikado Cream Station,	Fox River Butter Co.,	Detroit.
Spruce Creamery,	Spruce Valley Creamery Co.,	Spruce.
Mikado Cream Station,	Vasold Bros. & Co.,	Bay City.

ALLEGAN COUNTY.

Salem Creamery,	Jesse Norgaard,	Burnips Corners.
New Salem Cheese Factory,	Wolverine Condensed Milk Co.,	Lansing.
Kellogg Butter Factory,	H. H. Blaine,	Kellogg.
Springdale Cheese Factory,	M. W. Hicks,	Hopkins.
Wayland Cheese Factory,	Wolverine Condensed Milk Co.,	Lansing.
Saugatuck Milk Depot,	J. D. Myers,	Saugatuck.
Pullman Cream Station,	Holland Creamery Co.,	Holland.
Oakland Creamery Co.,	Jacob Vredeveid, Mgr.,	Hamilton, R. 1.
Merson Cream Station,	Gobleville Creamery Co.,	Gobleville.
Bentheim Creamery Co.,	Albert Smoes, Jr., Mgr.,	Hamilton, R. 1.
Allegan Creamery,	Overton Creamery Co.,	Allegan.
Salem Creamery,	Overton Creamery Co.,	Allegan.
Overisel Cooperative Creamery Co.,	John Peters, Mgr.,	Hamilton, R. 1.
East Saugatuck Creamery Co.,	John Siebelink,	East Saugatuck.
Fillmore Center Creamery Co.,	H. J. Kleinheksel, Mgr.,	Holland, R. 5.
Pearl Creamery,	Pearl Cooperative Creamery Co.,	Pearl.
Shelbyville Cream Station,	Michigan Butter Co.,	Kalamazoo.
Pullman Cream Station,	Boylard Creamery Co.,	Grand Rapids.
Hamilton Skimming Station,	Phenix Cheese Co.,	Zeeland.
Pullman Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Moline Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Otsego Creamery,	Otsego Creamery Co.,	Otsego.
Martin Creamery,	Martin Dairy and Produce Co.,	Martin.

ALPENA COUNTY.

Bolton Cream Station,	Vasold Bros. & Co.,	Bay City.
Dafoe Cream Station,	Vasold Bros. & Co.,	Bay City.

ANTRIM COUNTY.

Bellaire Cream Station,	Rudell Creamery Co.,	Grand Rapids.
Ellsworth Creamery,	Jas. Elzinga,	Ellsworth.
Atwood Creamery,	A. B. Snelier,	Atwood.
Mancelona Creamery,	E. Day,	Mancelona.
Mancelona Cream Station,	Sanitary Milk Co.,	Grand Rapids.

ARENAC COUNTY.

Sterling Creamery,	D. M. Scott,	Sterling.
Omer Creamery,	D. Henry, Jr.,	Omer.
Au Gres Cream Station,	Vasold Bros. & Co.,	Bay City.
Turner Cream Station,	Vasold Bros. & Co.,	Bay City.
Worth Cream Station,	Vasold Bros. & Co.,	Bay City.

BARAGA COUNTY.

Pelkie Creamery,	Ruona & Turunen,	Pelkie.
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STATE OF MICHIGAN.

BARRY COUNTY.

Name.	Owner or Manager.	Postoffice.
Crystal Creamery Co.,	Sherk & Mackey,	Hastings.
Farmers Cooperative Creamery Co.,	F. G. Haynes, Mgr.,	Freeport.
Farmers Cooperative Creamery Ass'n,	O. M. McLaughlin, Mgr.,	Nashville.
Middleville Creamery,	Middleville Cooperative Copartnership	
	Creamery Ass'n, Ltd.,	Middleville.
Shultz Cooperative Cry. Ass'n., Ltd.,	A. F. Phillips,	Shultz.
Woodland Cream Station,	Fox River Butter Co.,	Detroit.
Nashville Cream Station,	A. M. Smith & Co.,	Eaton Rapids.
Hickory Corners Creamery,	J. Veenstra, Prop.,	Hickory Corners.
Nashville Cream Station,	C. A. Roscoe,	Nashville.

BAY COUNTY.

Milk Depot, 203 S. Monroe St.,	J. J. McGinty,	Bay City.
Amelleth Cheese Factory,	John Berger, Sr., Sta. A, R. 5,	Bay City.
Frankenlust Creamery,	Martin Schwab, Sta. A,	Bay City, W. S.
Fraser Cheese Factory,	Fraser Cheese Co.,	Pinconning, R. 5.
Pinconning Cream Station,	Fox River Butter Co.,	Detroit.
Pinconning Cream Station,	Geo. E. Tanner,	Pinconning.
Bay City Creamery,	Vasold Bros. & Co.,	Bay City, W. S.
Linwood Cream Station,	Vasold Bros. & Co.,	Bay City, W. S.
Gibson Twp. Cheese Factory,	H. M. Schmidt Co.,	Saginaw.
Beaver Twp. Cheese Factory,	H. M. Schmidt Co.,	Saginaw.
Bentley Twp. Cheese Factory,	H. M. Schmidt Co.,	Saginaw.
Stevens Creamery Co. Milk Depot,	Stevens Creamery Co.,	Bay City.
Milk Depot,	Wm. Cuthbert, 2494 Center Ave.,	Bay City.
Milk Depot,	M. J. Battle,	Bay City.
Bay City Milk Depot,	John Gustafson, 222 Braddock,	Bay City.
Hamilton Twp. Milk Depot,	Ida M. Leix,	Bay City, R. 2.
Monitor Cheese Factory,	Paul Guoan, Station A,	Bay City, W. S.
Williams Twp. Cheese Factory,	Henry Sturm,	Freeland, R. 3.
Williams Twp. Cheese Factory,	Conrad C. Mrozinski,	Auburn, R. 1.
Fraser Twp. Creamery,	E. J. Whyte,	Linwood Star Route.

BENZIE COUNTY.

Cedar Run Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Lake Ann Cream Station,	Sanitary Milk Co.,	Grand Rapids.

BERRIEN COUNTY.

Baroda Cream Station,	South Bend Creamery Co.,	South Bend, Ind.
Buchanan Creamery,	St. Joseph Valley Creamery Co.,	Buchanan.
Watervliet Creamery Co.,	W. M. Baldwin, Mgr.,	Watervliet.
Pipestone Jersey Creamery,	Geo. T. Yetter,	Eau Claire, R. 2.
Glendora Creamery,	Bishop Creamery Co.,	Buchanan.
Gallen Condensed Milk Factory,	John Jacobson, 414 N. State St.,	Chicago, Ill.
Thorburn Bros. Milk Depot,	Thorburn Bros.,	Benton Harbor.
Hinchman Creamery,	A. C. Miller,	Berrien Springs.
Dayton Creamery,	John Jacobson, 414 N. State St.,	Chicago, Ill.
Three Oaks Creamery,	John Jacobson, 414 N. State St.,	Chicago, Ill.
Berrien Center Creamery,	Berrien Center Elgin Cry. Co.,	Berrien Center.
Barlow Bros. Milk Depot,	Barlow Bros.,	St. Joseph.
Coloma Creamery,	Coloma Creamery Co.,	Coloma.
Twin City Creamery,	Twin City Creamery Co.,	Benton Harbor.
Niles Creamery,	Niles Creamery Co.,	Niles.
Baroda Cream Station,	Bishop Creamery Co.,	Buchanan.

BRANCH COUNTY.

Bronson Cream Station,	South Bend Creamery Co.,	South Bend, Ind.
Sherwood Cream Station,	Jackson Farm Produce Co.,	Jackson.
Bronson Cream Station,	Jackson Farm Produce Co.,	Jackson.
Union City Cream Station,	Jackson Farm Produce Co.,	Jackson.
L. A. Downer Cheese Factory,	L. A. Downer,	Quincy.
Quincy Cream Station,	Towards Wayne County Creamery,	Detroit.
Coldwater Cream Station,	Towards Wayne County Creamery,	Detroit.
Sherwood Cream Station,	Fox River Butter Co.,	Detroit.

CALHOUN COUNTY.

Raymond & Rice Milk Depot,	Raymond & Rice, 60 S. Madison St.,	Battle Creek.
Athens Cream Station,	Jackson Farm Produce Co.,	Jackson.
Marengo Cream Station,	Jackson Farm Produce Co.,	Jackson.
Homer Cream Station,	Jackson Farm Produce Co.,	Jackson.
Marshall Cream Station,	Jackson Farm Produce Co.,	Jackson.
Burlington Cream Station,	Jackson Farm Produce Co.,	Jackson.
Tekonsha Cream Station,	Jackson Farm Produce Co.,	Jackson.
Battle Creek Creamery,	Mich. Sanitarium & Benevolent Ass'n	
	Cry., M. W. Wentworth, Mgr.,	Battle Creek.
F. E. Mellin Milk Depot,	F. E. Mellin, 15 E. Prairie Ave.,	Battle Creek.

CALHOUN COUNTY—Continued.

Name.	Owner or Manager.	Postoffice.
Marshall Creamery, Homer Creamery, Milk Producers Creamery, Albion Creamery,	Marshall Creamery Co., E. F. Campbell, Milk Producers Company, Maple City Dairy Co.,	Marshall. Homer. Battle Creek. Albion.

CASS COUNTY.

Cassopolis Creamery Co., Dowagiac Creamery, Spring Valley Creamery, Jones Creamery Co.,	Henry Edinger, Dowagiac Creamery & Butter Co., Geo. P. Sunday, R. L. Schell, Mgr.,	Cassopolis. Dowagiac. Marcellus. Jones.
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CHARLEVOIX COUNTY.

Boyne City Creamery, Bay Shore Cream Station,	Pine Lake Creamery Co., Bay Shore Mercantile Co.	Boyne City. Bay Shore.
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CHEBOYGAN COUNTY.

Wolverine Creamery, Cheboygan Creamery,	Wolverine Creamery Co., Cheboygan Dairy Co.,	Wolverine. Cheboygan.
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CHIPPEWA COUNTY.

Brimley Cream & Milk Depot, W. H. Stribling Milk Depot, Rudyard Dairying Ass'n, Rosedale Creamery, Pickford Cream Station,	Thompson & Washburn, W. H. Stribling, 419 Portage St., Wm. DeWitt, Mgr., James Thompson, E. S. Taylor,	Brimley. Sault Ste. Marie. Rudyard. Rosedale. Pickford.
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CLARE COUNTY.

Clare Cream Station, Harrison Cream Station, Clare Cream Station, Clare Cream Station, Temple Cream Station, Creamery, Cream Station, Cream Station, Lake Cream Station,	Port Huron Creamery Co., Swift & Co., W. W. Faley, Michigan Creamery Co., Swift & Co., Farmers Independent Cry. Co., Farmers Independent Cry. Co., Farmers Independent Cry. Co., Fox River Butter Co.,	Port Huron. Alma. Clare. Saginaw. Alma. Clare. Clare, R. F. D. Clare, R. F. D. Detroit.
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CLINTON COUNTY.

Westphalia Creamery, Bishop Creamery Co., Ovid Cream Station, St. Johns Cream Station, DeWitt Cream Station, Bath Cream Station, Elsie Cream Station, Shepardsville Cream Station, St. Johns Cream Station, St. Johns Cream Station, Ovid Creamery, Elsie Powdered Milk Plant, Eagle Cream Station, Ovid Cream Station, Fowler Creamery Co., Eureka Cheese Factory,	Alfred A. Bauer, E. E. Bishop, Durand Creamery Co., Durand Creamery Co., Durand Creamery Co., Swift & Co., Swift & Co., Swift & Co., Swift & Co., Medina County Creamery Co., The Ekenberg Co., The Ekenberg Co., Fox River Butter Co., A. M. Smith & Co., Peter Edinger, John Coverdale.	Westphalia. St. Johns. Durand. Durand. Durand. Alma. Alma. Alma. Alma. Detroit. Cortland, N. Y. Cortland, N. Y. Detroit. Eaton Rapids. Fowler. Eureka.
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DELTA COUNTY.

Garden Creamery, Escanaba Milk Depot, Escanaba Creamery, Bark River Creamery Co., Escanaba Milk Depot,	Garden Creamery Co., Bridgeman Russell Co., Martin Henrikson, Phil Labre, A. J. Valentine,	Garden. Hancock. Escanaba. Bark River. Escanaba.
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DICKINSON COUNTY.

Norway Creamery Co., Best Bros. Creamery, Iron Mountain Cream Station,	F. Copeland, Best Bros., Bridgeman Russell Co.,	Norway. Iron Mountain. Hancock.
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EATON COUNTY.

Bellevue Cream Station, Millets Cream Station, Olivet Cream Station,	Ray E. Stevens, Durand Creamery Co., Durand Creamery Co.,	Bellevue. Durand. Durand.
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EATON COUNTY—Continued.

Name.	Owner or Manager.	Postoffice.
Eaton Rapids Cream Station,	Towards Wayne County Creamery,	Detroit.
Olivet Cream Station,	Towards Wayne County Creamery,	Detroit.
Grand Ledge Cream Station,	Towards Wayne County Creamery,	Detroit.
Charlotte Cream Station,	Towards Wayne County Creamery,	Detroit.
Grand Ledge Cream Station,	Fox River Butter Co.,	Detroit.
Mulliken Cream Station,	Fox River Butter Co.,	Detroit.
Sunfield Cream Station,	Fox River Butter Co.,	Detroit.
Eaton Rapids Cream Station,	A. M. Smith & Co.,	Eaton Rapids.
Charlotte Cream Station,	A. M. Smith & Co.,	Eaton Rapids.
Olivet Cream Station,	A. M. Smith & Co.,	Eaton Rapids.
Mulliken Creamery,	Mulliken Cooperative Cry. Co.,	Mulliken.
Grand Ledge Cream Station,	Boyland Creamery Co.,	Grand Rapids.
Eaton Rapids Cream Station,	Crystal Creamery Co.,	Hastings.
Sunfield Cream Station,	Sanitary Milk Co.,	Grand Rapids.

EMMET COUNTY.

Petoskey Creamery,	E. S. Martin,	Petoskey.
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GENESEE COUNTY.

Clio Condensed Milk Co., Inc.,	Lester A. Wright, Mgr.,	Clio.
Cheese Factory & Skimming Station,	Clover Leaf Dairy Co.,	Swartz Creek.
Swartz Creek Cream Station,	Durand Creamery Co.,	Durand.
Argentine Cream Station,	Durand Creamery Co.,	Durand.
Gaines Cream Station,	Durand Creamery Co.,	Durand.
Linden Cream Station,	Durand Creamery Co.,	Durand.
Davidson Cream Station,	Port Huron Creamery Co.,	Port Huron.
Freeman Dairy Co., Creamery,	Leonard Freeman, Mgr.,	Flint.
Mt. Morris Cream Station,	Freeman Dairy Co.,	Flint.
Davidson Cream Station,	Durand Creamery Co.,	Durand.
Otisville Cream Station,	Durand Creamery Co.,	Durand.
Genesee Cream Station,	Durand Creamery Co.,	Durand.
Flushing Creamery,	Flushing Butter Co.,	Flushing.
Duffield Cream Station,	Towards Wayne County Creamery,	Detroit.
Flushing Cream Station,	Towards Wayne County Creamery,	Detroit.
Clio Condensed Milk Factory,	Clio Condensed Milk Co.,	Clio.
Gaines Cream Station,	Fox River Butter Co.,	Detroit.
Linden Cream Station,	Crouse & Parshall Dairy Prod. Co.,	Fenton.
Gaines Cream Station,	Crouse & Parshall Dairy Prod. Co.,	Fenton.
Fenton Creamery,	Crouse & Parshall Dairy Prod. Co.,	Fenton.
Flint Milk Depot,	E. E. McBroom, 208 Crapo St.,	Flint.
Milk Depot,	H. H. Knickerbocker,	Flint, R. 7.
Milk Depot,	J. Lamos,	Flint R. 6.
Milk Depot,	J. W. Blake, 115 W. 9th St.,	Flint.
Milk Depot,	W. W. Howes, 921 Ave. A.,	Flint.
Spring Brook Dairy Co.,	Ralph Hayes, Mgr.,	Otisville.

GLADWIN COUNTY.

Gladwin Creamery,	Gladwin Dairy & Produce Co.,	Gladwin.
Gladwin Cream Station,	Towards Wayne County Creamery,	Detroit.
Eatey Cream Station,	Vasold Bros & Co.,	Bay City.
Gladwin Cream Station,	Vasold Bros. & Co.,	Bay City.
Gladwin Creamery,	Gladwin Butter Co.,	Gladwin.
Oberlin Cream Station,	Gladwin Butter Co.,	Gladwin.
Wheatley Cream Station,	Gladwin Butter Co.,	Gladwin.
Skeels Cream Station,	Gladwin Butter Co.,	Gladwin.
Rhodes Cream Station,	Gladwin Butter Co.,	Gladwin.

GOGEBIC COUNTY.

Ironwood Creamery,	A. C. Buss,	Ironwood.
Bessemer Creamery,	C. A. D. McCready,	Bessemer.

GRAND TRAVERSE COUNTY.

Kingsley Cream Station,	Swift & Co.,	Alma.
Traverse City Creamery,	Wm. A. McCool,	Traverse City.
Traverse City Milk Depot,	Arthur W. Wiedoeft,	Traverse City.
Quality Cheese Factory,	McBride & Kreiser,	Buckley.
Kingsley Milk Depot,	Moore's Cash Store Co.,	Kingsley.
Traverse City Milk Depot,	Steve Lautner,	Traverse City.
Grawn Cream Station,	B. V. Funk,	Grawn.
Grawn Cream Station,	Reynolds & Co.,	Grawn.
Fife Lake Cream Station,	L. A. Gibbs,	Fife Lake.
Fife Lake Cream Station,	Wm. Osborn,	Fife Lake.
Wallin Cream Station,	Boyland Creamery Co.,	Grand Rapids.
Grawn Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Kingsley Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Summit City Cream Station,	Sanitary Milk Co.,	Grand Rapids.

GRATIOT COUNTY.

Name.	Owner or Manager.	Postoffice.
North Star Cream Station,	Durand Creamery Co.,	Durand.
Ola Cream Station,	Durand Creamery Co.,	Durand.
Brice Cream Station,	Durand Creamery Co.,	Durand.
Middleton Cream Station,	Durand Creamery Co.,	Durand.
Alma Creamery,	Swift & Co.,	Alma.
Alma Cream Station,	Swift & Co.,	Alma.
Bannister Cream Station,	Swift & Co.,	Alma.
Breckenridge Cream Station,	Swift & Co.,	Alma.
Edgewood Cream Station,	Swift & Co.,	Alma.
Ithaca Cream Station,	Swift & Co.,	Alma.
Rathbone Cream Station,	Swift & Co.,	Alma.
Riverdale Cream Station,	Swift & Co.,	Alma.
St. Louis Cream Station,	Swift & Co.,	Alma.
Wheeler Cream Station,	Swift & Co.,	Alma.
Middleton Cheese Factory,	Geo. S. Hart & Co.,	New York.
Perrinton Cheese Factory,	Geo. S. Hart & Co.,	New York.
Breckenridge Cream Station,	C. A. Zubler,	Breckenridge.
Breckenridge Creamery,	Breckenridge Creamery Co.,	Breckenridge.
Wheeler Cream Station,	Breckenridge Creamery Co.,	Breckenridge.
St. Louis Cream Station,	Breckenridge Creamery Co.,	Breckenridge.
Elm Hall Cream Station,	Breckenridge Creamery Co.,	Breckenridge.
St. Louis Creamery,	St. Louis Cooperative Creamery Co.,	St. Louis.
Middleton Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Riverdale Cream Station,	Sanitary Milk Co.,	Grand Rapids.

HILLSDALE COUNTY.

Hoxie Cheese Factory,	J. H. Livermore,	North Adams.
Adams Cheese Factory,	J. H. Livermore,	North Adams.
Shady Side Cheese Factory,	E. W. Lewis,	Osseo.
Somerset Cheese Factory,	Central Supply Co.,	Addison.
Montgomery Cheese Co.,	L. A. Downer,	Montgomery.
East Moscow Cheese Factory,	G. B. Elliott,	Jonesville.
Milnes Corners Cheese Factory,	G. B. Elliott,	Jonesville.
Litchfield Dairy Association,	W. E. Sheldon,	Litchfield.
Camden Creamery,	Wm. H. Smith & Son,	Camden.
Ransom Cheese Factory,	W. E. Cockin,	Waldron.
Waldron Cheese Factory,	W. E. Cockin,	Waldron.

HOUGHTON COUNTY.

Barsotti Bros. Milk Depot,	Barsotti Bros.,	Calumet.
Portage Lake Creamery Co.,	Frank Ellola,	Oskar.
Hancock Creamery,	Bridgeman Russell Co.,	Hancock.
Kenton Cream Station,	Bridgeman Russell Co.,	Hancock.
Alston Cream Station,	Bridgeman Russell Co.,	Hancock.
Chassell Creamery,	Chassell Creamery Co.,	Chassell.

HURON COUNTY.

Pigeon Creamery,	Fred M. Warner Cheese Co.,	Farmington.
Elmhurst Cheese Factory,	Fred M. Warner Cheese Co.,	Farmington.
Kilmanagh Cheese Factory,	Fred M. Warner Cheese Co.,	Farmington.
Elkton Cheese & Butter Factory,	Rice Bros.,	Elkton.
Uhly Condensed Milk Factory,	Page Milk Co.,	Philadelphia, Pa.
Ruth Cream Station,	Port Huron Creamery Co.,	Port Huron.
Port Hope Cream Station,	Port Huron Creamery Co.,	Port Huron.
Kinde Cream Station,	Port Huron Creamery Co.,	Port Huron.
Caseville Cream Station,	Port Huron Creamery Co.,	Port Huron.
Fillon Cream Station,	Port Huron Creamery Co.,	Port Huron.
Helena Cream Station,	Port Huron Creamery Co.,	Port Huron.
Harbor Beach Cream Station,	Port Huron Creamery Co.,	Port Huron.
Pinnebog Cream Station,	Port Huron Creamery Co.,	Port Huron.
Elkton Cream Station,	Port Huron Creamery Co.,	Port Huron.
Pigeon Cream Station,	Port Huron Creamery Co.,	Port Huron.
Owendale Cream Station,	Port Huron Creamery Co.,	Port Huron.
Bad Axe Cream Station,	Freeman Dairy Co.,	Flint.
Elkton Cream Station,	Medina County Creamery Co.,	Detroit.
Harbor Beach Cream Station,	Medina County Creamery Co.,	Detroit.
Bad Axe Cream Station,	James Haley,	Bad Axe.
Huron County Creamery Co.,	H. J. Clabuesch,	Pigeon, R. 1.
Ruth Creamery (John Wahla Mgr.),	Ruth Creamery Co.,	Ruth.
Parisville Cream Station,	Ruth Creamery Co.,	Ruth.
(John Mayer, Mgr.)		
Parisville Cream Station,	Ruth Creamery Co.,	Ruth.
(Ed. Zinger, Mgr.)		
Parisville Cream Station,	Ruth Creamery Co.,	Ruth.
(Paul Wloch, Mgr.)		
Port Austin Cream Station,	Towards Wayne County Creamery,	Detroit.
Harbor Beach Cream Station,	Fox River Butter Co.,	Detroit.
Harbor Beach Cream Station,	Michigan Creamery Co.,	Saginaw.
Port Austin Cream Station,	Michigan Creamery Co.,	Saginaw.
Bad Axe Cream Station,	Michigan Creamery Co.,	Saginaw.

HURON COUNTX—Continued.

Name.	Owner or Manager.	Postoffice.
Port Hope Cream Station,	Michigan Creamery Co.,	Saginaw.
Fillon Cream Station (J. R. Toy)	Port Huron Creamery Co.,	Port Huron.
Owendale Cream Station,	Henry Schnepf,	Owendale.
Owendale Cream Station,	Fred M. Warner Cheese Co.,	Farmington.
Bay Port Cream Station,	Michigan Creamery Co.,	Saginaw.

INGHAM COUNTY.

Webberville Con'd Milk Factory,	Chapin & Sacks Mfg. Co.,	Washington, D. C.
Onondaga Cheese Factory,	M. M. Moore,	Onondaga.
Onondaga Cream Station,	Jackson Farm Produce Co.,	Jackson.
Lansing Condensed Milk Factory,	Bordens Con'd Milk Co.,	New York.
Webberville Cream Station,	Swift & Co.,	Alma.
Milk Depot,	Whitney & Everett, 1320 Wash Av. S.,	Lansing.
Williamston Cream Station,	Detroit Creamery Co.,	Detroit.
Milk Depot,	N. H. Winans & Sons,	Lansing.
Mason Cream Station,	Towars Wayne County Creamery,	Detroit.
Webberville Cream Station,	Fox River Butter Co.,	Detroit.
Williamston Cream Station,	Fox River Butter Co.,	Detroit.
Mason Cream Station,	A. M. Smith & Co.,	Eaton Rapids
Leslie Creamery,	E. J. Kneibehler,	Leslie.
Milk Depot,	J. A. Morrison,	Lansing.
Holt Cream Station,	E. J. Kneibehler,	Leslie.
Mason Cream Station,	E. J. Kneibehler,	Leslie.
Cottage Creamery,	M. W. French,	Lansing.

IONIA COUNTY.

Condensed Milk Factory,	Lake Odessa Milk Co. (F. A. Page),	Lake Odessa.
Clarksville Creamery,	Clarksville Creamery Co.,	Clarksville.
Muir Creamery,	Bishop's Clinton Creamery,	St. Johns.
Hubbarston Cream Station,	Durand Creamery Co.,	Durand.
Ionias Creamery,	Austin & Darling,	Ionias.
Collins Cream Station,	Swift & Co.,	Alma.
Ionias Cream Station,	Swift & Co.,	Alma.
Lake Odessa Cream Station,	Swift & Co.,	Alma.
Muir Cream Station,	Swift & Co.,	Alma.
Portland Cream Station,	Swift & Co.,	Alma.
Lake Odessa Cream Station,	Towars Wayne County Creamery,	Detroit.
Portland Cream Station,	Towars Wayne County Creamery,	Detroit.
Lake Odessa Cream Station,	Fox River Butter Co.,	Detroit.
Easton Cream Station,	Detroit Creamery Co.,	Detroit.
Saranac Creamery,	Farmers Cooperative Creamery,	Saranac.
Lyons Cream Station,	Breckenridge Creamery Co.,	Breckenridge.
Lyons Cream Station,	Boylard Creamery Co.,	Grand Rapids.
Portland Cream Station,	L. Barber & Co.,	Edmore.

IOSCO COUNTY.

Hale Cheese Factory,	John H. Carey,	Hale.
Emery Jct. Cream Station,	Iosco Creamery Co.,	Whittemore.
Tawas City Creamery,	Geo. Fasholdt,	Tawas City.

IRON COUNTY.

Iron River Creamery Co.,	Henry H. Frailing,	Iron River.
Crystal Falls Creamery,	Crystal Falls Creamery Ass'n,	Crystal Falls.

ISABELLA COUNTY.

Mt. Pleasant Con'd Milk Fac.,	Bordens Cond' Milk Co.,	New York.
Brinton Cream Station,	Swift & Co.,	Alma.
Blanchard Cream Station,	Swift & Co.,	Alma.
Broomfield Cream Station,	Swift & Co.,	Alma.
Coe Cream Station,	Swift & Co.,	Alma.
Mt. Pleasant Cream Station,	Swift & Co.,	Alma.
Rosebush Cream Station,	Swift & Co.,	Alma.
Shepherd Cream Station,	Swift & Co.,	Alma.
Weldman Cream Station,	Swift & Co.,	Alma.
Wise Cream Station,	Swift & Co.,	Alma.
Rosebush Cream Station,	Wm. S. Teeter,	Rosebush.
Leaton Cream Station,	Vasold Bros. & Co.,	Bay City.
Loomis Cream Station,	Vasold Bros. & Co.,	Bay City.
Delwin Cream Station,	Vasold Bros. & Co.,	Bay City.
Brinton Cream Station,	Michigan Creamery Co.,	Saginaw.
Delwin Cream Station,	Ford Market Creamery,	Highland Park.
Blanchard Cream Station,	L. Barber & Co.,	Edmore.
Weldman Cream Station,	L. Barber & Co.,	Edmore.

JACKSON COUNTY.

Name.	Owner or Manager.	Postoffice.
Parma Butter Co.,	Jos. Helmer, Mgr.,	Parma.
Lakeside Elgin Butter Co.,	J. M. Rohrer, Mgr.,	Grass Lake.
Crystal Creamery Co.,	Edward S. Wilcox, Mgr.,	Concord.
Jackson Creamery,	Jackson Farm Produce Co.,	Jackson.
Horton Cream Station,	Jackson Farm Produce Co.,	Jackson.
Napoleon Cream Station,	Jackson Farm Produce Co.,	Jackson.
Spring Arbor Cream Station,	Jackson Farm Produce Co.,	Jackson.
Rives Junction Cream Station,	Jackson Farm Produce Co.,	Jackson.
Clark Lake Cream Station,	Jackson Farm Produce Co.,	Jackson.
Brooklyn Creamery Co.,	A. W. Brooks, Mgr.,	Brooklyn.
Jackson Condensed Milk Co.,	Bordens Condensed Milk Co.,	New York.
Brooklyn Cream Station,	Medina County Creamery Co.,	Detroit.
Devereaux Creamery,	Elmer Bros.,	Devereaux.
Springport Cream Station,	Elmer Bros.,	Devereaux.
Springport Cream Station,	A. M. Smith & Co.,	Eaton Rapids.
Jackson Cream Station,	Colvin Dairy Co.,	Jackson.
Springport Creamery Co.,	Boyland Creamery Co.,	Grand Rapids.

KALAMAZOO COUNTY.

Schoolcraft Cream Station,	South Bend Creamery Co.,	South Bend, Ind.
Creamery, 221 E. Ransom St.,	Dairymen's Milk Co.,	Kalamazoo.
Island Creamery,	W. G. McCreary, Mgr.,	Schoolcraft.
Vicksburg Creamery,	Bishop Creamery Co.,	Buchanan.
Kalamazoo Creamery,	Kalamazoo Cry. Co., E. South St.,	Kalamazoo.
Creamery,	Michigan Butter Co.,	Kalamazoo.
Creamery,	W. J. Kendall, 815 Cedar St.,	Kalamazoo.

KALKASKA COUNTY.

Rowley Cream Station,	Swift & Co.,	Alma.
Sigma Cream Station,	Swift & Co.,	Alma.
Kalkaska Cream Station,	Cadillac Ice Cream Co.,	Cadillac.
South Boardman Cream Station,	Hunter Bros.,	South Boardman.
Kalkaska Cream Station,	Swift & Co. (Coles Bros.),	Kalkaska.
South Boardman Cream Station,	Boyland Creamery Co.,	Grand Rapids.
Darragh Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Hannah Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Kalkaska Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Sigma Cream Station,	Sanitary Milk Co.,	Grand Rapids.

KENT COUNTY.

Alto Cooperative Copartnership Cry. Ass'n, Ltd.,	G. E. Watts, Mgr.,	Alto.
Cedar Springs Cooperative Copartnership Cry. Co., Ltd.,	F. S. Andrus, Mgr.,	Cedar Springs.
Kent City Cheese Factory,	Peterson & Carlson,	Kent City.
Blue Valley Creamery,	Blue Valley Creamery Co.,	Grand Rapids.
Sparta Creamery,	Geo. S. King, 254 Sargeant St.,	Hartford, Conn.
Byron Center Creamery Co.,	L. J. Osinga, Mgr.,	Byron Center.
Caledonia Creamery,	Caledonia Cooperative Copartnership Cry. Ass'n, Ltd.,	Caledonia.
Rockford Cream Station,	Durand Creamery Co.,	Durand.
Lowell Cream Station,	Durand Creamery Co.,	Durand.
Grand Rapids Cheese Factory,	Geo. & Lucas Triemstra, 21 Holland Ave. N. E.,	Grand Rapids.
Milk Depot,	C. J. Eberhard, Est.,	Grand Rapids.
Grand Rapids Creamery,	M. T. McNamara, 662 Lake Drive,	Grand Rapids.
Milk Depot,	A. Vonk & Son, 816 Wealthy St.,	Grand Rapids.
Milk Depot,	Ed. Brown,	Caledonia, R. 59.
Boyland Creamery,	Boyland Creamery Co.,	Grand Rapids.
Sparta Cream Station,	Boyland Creamery Co.,	Grand Rapids.
Milk Depot,	Vito Palazzola, 325 Graham St.,	Grand Rapids.
Milk Depot,	C. Grootenhaar, 1145 Wealthy St.,	Grand Rapids.
Milk Depot,	Peter Joppe, 1145 Wealthy St.,	Grand Rapids.
Milk Depot,	J. A. Buffham, Jr., 1518 North St.,	Grand Rapids.
Milk Depot,	T. Groothoof, 1145 Wealthy St.,	Grand Rapids.
Creamery,	Sanitary Milk Co.,	Grand Rapids.

LAKE COUNTY.

Luther Creamery,	Clare M. Baker,	Luther.
Dublin Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Nirvana Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Olivers Cream Station,	Food Market Creamery,	Highland Park.
Chase Cream Station,	Food Market Creamery,	Highland Park.

STATE OF MICHIGAN.

LAPEER COUNTY.

Name.	Owner or Manager.	Postoffice.
Imlay City Cream Station,	R. A. Butler,	Imlay City,
Lapeer County Creamery,	R. F. Frary,	Lapeer.
Almont Creamery,	Frank A. Chevie,	Almont.
Peoples Creamery,	Stacey & Whitney,	North Branch.
Clifford Cheese Factory & Cry.,	Amos L. Kinney,	Clifford.
Imlay City Cream Station,	Port Huron Creamery Co.,	Port Huron.
Five Lakes Cream Station,	Port Huron Creamery Co.,	Port Huron.
North Branch Cream Station,	Towards Wayne County Creamery,	Detroit.
Dryden Cream Station,	Towards Wayne County Creamery,	Detroit.
King Mills Cream Station,	Fox River Butter Co.,	Detroit.
Lum Cream Station,	Fox River Butter Co.,	Detroit.
Dryden Cream Station,	Fox River Butter Co.,	Detroit.
Almont Cream Station,	Port Huron Creamery Co.,	Port Huron.
Almont Cream Station,	McGillies Bros.,	Almont.
Imlay City Creamery,	T. B. Keyworth,	Imlay City.
Imlay City Cream Station,	T. B. Keyworth,	Imlay City.
Burnside Cream Station,	Michigan Creamery Co.,	Saginaw.

LEELANAU COUNTY.

Northport Creamery,	Leelanau Twp. Farmers Club,	Northport.
Maple City Creamery,	L. L. Drake,	Maple City.

LENAWEE COUNTY.

Condensed Milk Factory,	Van Camp Packing Co.,	Adrian.
Cheese Factory,	Central Supply Co.,	Addison.
Cadmus Cream Station,	Clover Leaf Dairy Co.,	Toledo.
Palmyra Cream Station,	H. H. Driggs,	Palmyra.
Morenci Condensed Milk Factory,	Ohio Dairy Co.,	Toledo, Ohio.
Ridgeway Cream Station,	Medina County Creamery Co.,	Detroit.
Macon Creamery,	Macon Creamery Co.,	Macon.
Ennis Cream Station,	Towards Wayne County Creamery,	Detroit.
Mumson Cream Station,	Towards Wayne County Creamery,	Detroit.
Sand Creek Cream Station,	Towards Wayne County Creamery,	Detroit.
Blissfield Creamery,	Blissfield Creamery Co.,	Blissfield.
Onsted Cream Station,	Fox River Butter Co.,	Detroit.
Jasper Creamery,	J. R. Skidmore, Lessee,	Jasper.

LIVINGSTON COUNTY.

Cohoctah Cream Station,	Durand Creamery Co.,	Durand.
Cohoctah Center Cream Station,	Durand Creamery Co.,	Durand.
Hamburg Cream Station,	Durand Creamery Co.,	Durand.
Howell Cream Station,	Durand Creamery Co.,	Durand.
Howell Condensed Milk Co.,	Bordens Condensed Milk Co.,	New York.
Cohoctah Cream Station,	Swift & Co.,	Alma.
Cohoctah Cream Station,	Flushing Butter Co.,	Flushing.
Anderson Cheese Factory,	Samuel Boyer,	Stockbridge.
Brighton Cream Station,	Detroit Creamery Co.,	Detroit.
Pinckney Cream Station,	Towards Wayne County Creamery,	Detroit.
Fowlerville Cream Station,	Towards Wayne County Creamery,	Detroit.
Fowlerville Cream Station,	Fox River Butter Co.,	Detroit.
Ruhton Cream Station,	Fox River Butter Co.,	Detroit.

MACKINAC COUNTY.

Engadine Creamery,	W. J. Raper, Mgr.,	Engadine.
Engadine Milk Depot,	Bridgeman Russell Co.,	Hancock.

MACOMB COUNTY.

Romeo Elgin Creamery,	L. B. Crawford, Mgr.,	Romeo.
New Baltimore Creamery,	New Baltimore Creamery Co.,	New Baltimore.
Lenox Cream Station,	Port Huron Creamery Co.,	Port Huron.
Memphis Cream Station,	Port Huron Creamery Co.,	Port Huron.
Gatz Creamery,	John F. Gatz,	Mt. Clemens.
Cady Cream Station,	Detroit Creamery Co.,	Detroit.
Mt. Clemens Cream Station,	Detroit Creamery Co.,	Detroit.
Muttonville Cream Station,	Detroit Creamery Co.,	Detroit.
New Haven Cream Station,	Detroit Creamery Co.,	Detroit.
Utica Cream Station,	Detroit Creamery Co.,	Detroit.
Utica Creamery,	Utica Cooperative Creamery Ass'n,	Utica.
Disco Skimming Station,	Utica Cooperative Creamery Ass'n,	Utica.
Macomb Skimming Station,	Utica Cooperative Creamery Ass'n,	Utica.
Waldenburg Skimming Station,	Utica Cooperative Creamery Ass'n,	Utica.
Washington Cream Station,	Towards Wayne County Creamery,	Detroit.
Lenox Cream Station,	Fox River Butter Co.,	Detroit.
New Haven Cream Station,	Fox River Butter Co.,	Detroit.
Chesterfield Creamery Co.,	C. F. Jordan, Mgr.,	Mt. Clemens.
Waldenburg Cream Station,	Chesterfield Creamery Co.,	Mt. Clemens.
Meade Skimming Station,	Chesterfield Creamery Co.,	Mt. Clemens.

MACOMB COUNTY—Continued.

Name.	Owner or Manager.	Postoffice.
Mt. Clemens Skimming Station, Meyers Skimming Station, Kochs Skimming Station, Richmond Creamery, Memphis Cream Station,	Chesterfield Creamery Co., Chesterfield Creamery Co., Chesterfield Creamery Co., Wm. H. A. Zentgrebe, Almont Creamery Co.,	Mt. Clemens. Mt. Clemens. Mt. Clemens. Richmond. Almont.

MANISTEE COUNTY.

Kaleva Cream Station, Milk Depot, Copemish Creamery Co., Saele Cream Station, Harlan Cream Station,	Swift & Co., Alfred Hansen 449½ River St., C. M. Conklin, Mgr., Copemish Creamery Co., Sanitary Milk Co.,	Alma. Manistee. Copemish. Copemish. Grand Rapids.
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MARQUETTE COUNTY.

Skandia Creamery, Ishpeming Creamery,	Skandia Creamery Co., A. R. Meen,	Marquette. Ishpeming.
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MASON COUNTY.

Fountain Cream Station, Freesoll Cheese Factory, Wiley Creamery, Alpha Creamery, Fountain Cream Station, Freesoll Cream Station, Fountain Cream Station, Branch Cream Station, Custer Cream Station, Fountain Cream Station, Millerton Cream Station,	O. C. Hanson, Brown & Palmer, John Szostakowski, Axel Kehlet, Michigan Creamery Co., Michigan Creamery Co., Boyland Creamery Co., Sanitary Milk Co., Sanitary Milk Co., Sanitary Milk Co., Sanitary Milk Co.,	Fountain. Freesoll. Scottville, R. 2. Ludington. Saginaw. Saginaw. Grand Rapids. Grand Rapids. Grand Rapids. Grand Rapids. Grand Rapids.
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MECOSTA COUNTY.

Remus Cooperative Association, Altona Cream Station, Barryton Cream Station, Big Rapids Cream Station, Mecosta Cream Station, Millbrook Cream Station, Remus Cream Station, Rodney Cream Station, Titus Cream Station, Pogy Cream Station, Stanwood Cream Station, Big Rapids Cream Station, Barryton Cream Station, Stanwood Cream Station, Remus Cream Station, Barryton Cream Station, Big Rapids Cream Station, Millbrook Cream Station, Rodney Cream Station, Mecosta Cream Station, Model Cooperative Creamery,	E. F. Browne, Mgr., Swift & Co., Swift & Co., Swift & Co., Swift & Co., Swift & Co., Swift & Co., Swift & Co., Swift & Co., Clifford Wilson, Boyland Creamery Co., Sanitary Milk Co., Sanitary Milk Co., Sanitary Milk Co., L. Barber & Co., L. Barber & Co., L. Barber & Co., L. Barber & Co., L. Barber & Co., L. Barber & Co., L. Barber & Co., Model Cooperative Creamery Co.,	Remus. Alma. Alma. Alma. Alma. Alma. Alma. Alma. Alma. Hersey, R. F. D. Grand Rapids. Grand Rapids. Grand Rapids. Grand Rapids. Edmore. Edmore. Edmore. Edmore. Edmore. Edmore. Edmore. Big Rapids.
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MENOMINEE COUNTY.

Nadeau Creamery, Ingalls Cheese & Butter Factory, Daggett Creamery, I X L Creamery Co., Stephenson Creamery, Pine Hill Farm Creamery, Wallace Creamery, Cheese Factory, Carney Cheese Factory, Wilson Cheese Factory, Cheese Factory, Carney Milk Depot,	Nadeau Bros., Ira Carley, T. A. Pasteriski, R. M. Raasmussen, Mgr., H. E. Zahnke, C. I. Cook, John H. Noppenberg, Wallie Landre, John H. Hannon, Adolph Trousil, Chas. Elliott & Son, Bridgeman Russell Co.,	Nadeau. Ingalls. Daggett. Hermansville. Stephenson. Menominee. Wallace. Stephenson. Carney. Wilson. Bark River. Hancock.
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MIDLAND COUNTY.

North Bradley Cream Station, Coleman Creamery Co., Midland Creamery, Sanford Cream Station, Midland Cream Station, Coleman Cream Station, Posyville Cream Station,	Swift & Co., N. G. See, Mgr., Vasold Bros. & Co., Vasold Bros. & Co., Michigan Creamery Co., Michigan Creamery Co., Vasold Bros. & Co.,	Alma. Coleman. Bay City. Bay City. Saginaw. Saginaw. Bay City.
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STATE OF MICHIGAN.

MISSAUKEE COUNTY.

Name.	Owner or Manager.	Postoffice.
McBain Cream Station,	Durand Creamery Co.,	Durand.
Lucas Cream Station,	Durand Creamery Co.,	Durand.
McBain Cream Station,	Swift & Co.,	Alma.
Prosper Cream Station,	Swift & Co.,	Alma.
Lake City Creamery,	Lake City Creamery Co.,	Lake City.
Forquer Bros. Cream Station,	Forquer Bros.,	Missaukee.
Cutcheon Cream Station,	Dennis Nowlin & Co.,	Cutcheon.
Lake City Cream Station,	John Seafuse,	Lake City.
Arlene Cream Station,	A. D. Whipple,	Arlene.

MONROE COUNTY.

Monroe Butter & Cheese Factory,	J. C. Sterling,	Monroe.
LaSalle Cream Station,	Monroe Butter & Cheese Factory,	Monroe.
Stony Creek Cream Station,	Monroe Butter & Cheese Factory,	Monroe.
So. Rockwood Butter & Cheese Fac.,	John Strong & Sons,	South Rockwood.
Excelsior Creamery Co.,	W. G. Hoffman,	Ida.
Strasburg Skimming Station,	Excelsior Creamery Co.,	Ida.
Temperance Cream Station,	Clover Leaf Dairy Co.,	Toledo.
Carleton Cream Station,	Medina County Creamery Co.,	Detroit.
Rea Cream Station,	Medina County Creamery Co.,	Detroit.
Maybee Cream Station,	Medina County Creamery Co.,	Detroit.
Raisenville Twp. Cheese Factory,	D. A. Jenkins,	Monroe.
Milan Cream Station,	Towards Wayne County Creamery,	Detroit.
Dundee Cream Station,	Towards Wayne County Creamery,	Detroit.
Maybee Cream Station,	Towards Wayne County Creamery,	Detroit.
Dundee Condensed Milk Factory,	Ohio Dairy Co.,	Toledo, O.
Carleton Cream Station,	Fox River Butter Co.,	Detroit.
Scofield Cream Station,	Fox River Butter Co.,	Detroit.
Petersburg Creamery,	Peters & Paquette.	Petersburg.

MONTCALM COUNTY.

Sheridan Creamery,	Bishop's Clinton Creamery,	St. Johns.
Sheridan Cream Station,	Durand Creamery Co.,	Durand.
Carson City Cream Station,	Durand Creamery Co.,	Durand.
Crystal Cream Station,	Durand Creamery Co.,	Durand.
Butternut Cheese Factory,	Campbell Bros. Co., 245 Napoleon St.,	Detroit.
Sidney Cheese Factory,	Sidney Cheese Co.,	Sidney.
Coral Cream Station,	Swift & Co.,	Alma.
Edmore Cream Station,	Swift & Co.,	Alma.
Entrican Cream Station,	Swift & Co.,	Alma.
Fishville Cream Station,	Swift & Co.,	Alma.
Ferris Cream Station,	Swift & Co.,	Alma.
Howard City Cream Station,	Swift & Co.,	Alma.
Lakeview Cream Station,	Swift & Co.,	Alma.
Pierson Cream Station,	Swift & Co.,	Alma.
Sheridan Cream Station,	Swift & Co.,	Alma.
Sidney Cream Station,	Swift & Co.,	Alma.
Six Lakes Cream Station,	Swift & Co.,	Alma.
Stanton Cream Station,	Swift & Co.,	Alma.
Trufant Cream Station,	Swift & Co.,	Alma.
Vestaburg Cream Station,	Swift & Co.,	Alma.
Vickeryville Cheese Factory,	M. C. Johnson.	Vickeryville.
Amble Creamery Co.,	Albert Masters, Mgr.,	Amble.
Carson City Cream Station,	Towards Wayne County Creamery,	Detroit.
Carson City Cheese Factory,	F. H. Miner,	Carson City.
Vestaburg Cream Station,	Breckenridge Creamery Co.,	Breckenridge.
Wyman Cream Station,	Breckenridge Creamery Co.,	Breckenridge.
Howard City Cream Station,	Breckenridge Creamery Co.,	Breckenridge.
Trufant Cream Station,	Breckenridge Creamery Co.,	Breckenridge.
Greenville Creamery,	S. Petersen,	Greenville.
Trufant Cream Station,	Jensen Bros.,	Trufant.
McBride Creamery Co.,	Harden & Doff,	McBride.
Coral Cream Station,	Boylard Creamery Co.,	Grand Rapids.
Pierson Cream Station,	Boylard Creamery Co.,	Grand Rapids.
Sheridan Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Edmore Creamery,	L. Barber & Co.,	Edmore.
Stanton Cream Station,	L. Barber & Co.,	Edmore.
Howard City Cream Station,	L. Barber & Co.,	Edmore.
Trufant Cream Station,	L. Barber & Co.,	Edmore.
Entrican Cream Station,	L. Barber & Co.,	Edmore.

MONTMORENCY COUNTY.

Hillman Creamery Co.,	R. J. Hunt.	Hillman.
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MUSKEGON COUNTY.

Name.	Owner or Manager.	Postoffice.
Ravenna Incorporated Butter Co.,	Owen N. Harrison, Mgr.,	Ravenna.
Holton Creamery,	Holton Creamery Co.,	Holton.
Muskegon Milk Depot,	Dalson & Nielson, 174 Muskegon Ave.,	Muskegon.
Peerless Creamery,	Fiester & Knudsen,	Muskegon.
White Lake Creamery Co.,	Edw. T. Rogers, Mgr.,	Montague.
Dalton Milk Depot,	Edw. Rasmussen,	Muskegon.
Milk Depot,	John Baars,	Muskegon.
Casnovia Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Dalton Creamery,	E. J. Peterson,	Muskegon.
Moorland Cream Station,	Dalton Creamery,	Muskegon.
Sullivan Cream Station,	Dalton Creamery,	Muskegon.
Opdyke Cream Station,	Dalton Creamery,	Muskegon.
Cloverleaf Creamery,	Herman Berghuis, Mgr.,	Muskegon.

NEWAYGO COUNTY.

Aetna Cream Station,	Delbert DeLong,	White Cloud, No. 1.
Brookside Cream Station,	Holland Crystal Creamery,	Holland.
Brunswick Cream Station,	Holland Crystal Creamery,	Holland.
Aetna Cream Station,	Holland Crystal Creamery,	Holland.
Sitka Cream Station,	Holland Crystal Creamery,	Holland.
Ramona Cream Station,	Holland Crystal Creamery,	Holland.
White Cloud Creamery,	B. C. Martin,	White Cloud.
Bishop Creamery Co.,	John Dobbin,	Fremont.
Grant Cooperative Creamery Co.	Arthur L. Rich,	Grant.
Newaygo Cream Station,	Swift & Co.,	Alma.
Woodville Cream Station,	Swift & Co.,	Alma.
Reeman Cooperative Creamery Co.,	John M. Beem,	Reeman.
Fremont Creamery Co.,	H. Rozema,	Fremont.
Rouge River Creamery Co.,	J. Van der Molen,	Grant, R. 3.
Beaver Township Creamery,	Andrus & Townsend,	Bitley.
Lake Cream Station,	Michigan Creamery Co.,	Saginaw.
Woodville Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Wooster Cream Station,	Dalton Creamery,	Muskegon.

OAKLAND COUNTY.

Novi Cheese Factory,	Fred M. Warner Cheese Co.,	Farmington.
Powers Cheese Factory,	Fred M. Warner Cheese Co.,	Farmington.
Farmington Cheese Factory,	Fred M. Warner Cheese Co.,	Farmington.
Avon Milk Depot,	F. W. Yates,	Rochester, R. F. D.
Walled Lake Cheese Factory,	C. G. Freeman,	Pontiac.
South Lyon Cream Station,	Detroit Creamery Co.,	Detroit.
Holly Cream Station,	Towards Wayne County Creamery,	Detroit.
Rose Center Cream Station,	Towards Wayne County Creamery,	Detroit.
Davisburg Cream Station,	Towards Wayne County Creamery,	Detroit.
Clarenceville Cream Station,	Towards Wayne County Creamery,	Detroit.
New Hudson Cream Station,	Towards Wayne County Creamery,	Detroit.
W. Bloomfield Milk Depot,	John Decker,	Farmington.
Pontiac Creamery,	Pontiac Cooperative Creamery Co.,	Pontiac.
Royal Oak Creamery,	F. E. Springsteen,	Royal Oak.
Holly Cream Station,	Crouse & Parshall Produce Co.,	Fenton.

OCEANA COUNTY.

Ferry Creamery,	Shelby Dairy Co.,	Shelby.
Shelby Creamery,	Shelby Dairy Co.,	Shelby.
Rothbury Creamery Co.,	J. L. Lindsay, Mgr.,	Rothbury.
Clay Banks Cooperative Cry. Ass'n,	Wm. A. Eaton,	Shelby, R. 5.
New Era Creamery Co.,	Geo. Meyers,	New Era.
Heperia Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Crystal Valley Cream Station,	Dalton Creamery,	Muskegon.
Eatna Corners Cream Station,	Dalton Creamery,	Muskegon.
Pentwater Cream Station,	Dalton Creamery,	Muskegon.
Mears Cream Station,	Dalton Creamery,	Muskegon.

OGEMAW COUNTY.

Ogemaw Cream Cheese Co.,	Wellington Gilbert, Mgr.,	Lupton.
West Branch Cream Station,	Herbert Heman,	West Branch.
West Branch Cream Station,	Halpin Creameries,	Detroit.
Rose City Creamery,	W. A. Cook,	Rose City.
Selkirk Cream Station,	Caracallen Bros.,	Selkirk.
Klack Creek Cream Station,	S. Caracallen,	Klack Creek.
Prescott Cream Station,	Vasold Bros. & Co.,	Bay City.
West Branch Cream Station,	Michigan Creamery Co.,	Saginaw.
Rose City Cream Station,	Michigan Creamery Co.,	Saginaw.
Prescott Cream Station,	Michigan Creamery Co.,	Saginaw.

ONTONAGON COUNTY.

Ontonagon Creamery,	Ontonagon Creamery Co.,	Ontonagon.
Paynesville Cream Station,	Bridgeman Russell Co.,	Hancock.
Bruce's Crossing Cream Station,	Bridgeman Russell Co.,	Hancock.
Mass Cream Station,	Bridgeman Russell Co.,	Hancock.

OSCEOLA COUNTY.

Name.	Owner or Manager.	Postoffice.
Hersey Creamery.	F. D. Barberree, Mgr.,	Hersey.
Marion Cream Station.	Durand Creamery Co.,	Durand.
Dighton Cream Station.	Durand Creamery Co.,	Durand.
Ewart Cream Station.	J. W. Davis Co.,	Ewart.
LeRoy Creamery.	Wm. A. Conry,	LeRoy.
Dighton Cream Station.	Swift & Co.,	Alma.
Marion Cream Station.	Swift & Co.,	Alma.
Park Lake Cream Station.	Swift & Co.,	Alma.
Reed City Cream Station.	Swift & Co.,	Alma.
Tustin Cream Station.	Swift & Co.,	Alma.
Ewart Cream Station.	Geo. D. Johnston,	Ewart.
Ewart Cream Station.	Michigan Creamery Co.,	Saginaw.
Hersey Cream Station.	Gladwin Butter Co.,	Gladwin.
Hersey Cream Station.	Michigan Creamery Co.,	Saginaw.
Reed City Cream Station.	Michigan Creamery Co.,	Saginaw.
Reed City Creamery.	Reed City Butter Co.,	Reed City.
Reed City Cream Station.	Reed City Butter Co.,	Reed City.
Reed City Cream Station.	Reed City Butter Co.,	Reed City.
Tustin Cream Station.	Boyland Creamery Co.,	Grand Rapids.
Tustin Cream Station.	Sanitary Milk Co.,	Grand Rapids.
Tustin Cream Station.	L. Barber & Co.,	Edmore.

OTSEGO COUNTY.

Gaylord Creamery Co.,	Sam Sellers,	Gaylord.
Vanderbilt Cream Station.	Vasold Bros. & Co.,	Bay City.
Hallock Cream Station.	Vasold Bros. & Co.,	Bay City.
Kneeland Creamery Co.,	Beck & Stutesman,	Kneeland.

OTTAWA COUNTY.

Holland Crystal Creamery.	C. J. Lokker, Mgr.,	Holland.
Noordeloos Skimming Station.	Holland Crystal Creamery,	Holland.
Beaverdam Creamery.	Beaverdam Creamery Co.,	Zeeland, R. 2.
Jamestown Cooperative Creamery.	Jamestown Cooperative Cry. Co.,	Hudsonville, R. 3.
Jamestown Skimming Station.	Jamestown Cooperative Cry. Co.,	Hudsonville, R. 3.
Conklin Creamery.	Farmers Cooperative Creamery Ass'n.	Conklin.
Vriesland Creamery Co.,	M. Van Zoeren,	Zeeland R. 3.
Crisp Creamery.	A. J. Nienhuis,	Holland, R. 2.
Allendale Cooperative Creamery.	Elmer E. Smead, Mgr.,	Allendale.
Bauer Creamery.	Bauer Creamery Co.,	Bauer.
Blendon Skimming Station.	Bauer Creamery Co.,	Bauer.
Interurban Creamery Co.,	John Van Rhee,	Jamestown.
Grand Haven Milk Depot.	Wm. Vincent.	Grand Haven.
Grand Haven Milk Depot.	J. J. Middag, Jr.,	Grand Haven.
Grand Haven Milk Depot.	L. & W. Griswold,	Grand Haven.
Phenix Cheese Factory.	Phenix Cheese Co.,	Zeeland.
Harlem Skimming Station.	Phenix Cheese Co.,	Zeeland.
Blendon Skimming Station.	Phenix Cheese Co.,	Zeeland.
West Olive Cream Station.	Sanitary Milk Co.,	Grand Rapids.

PRESQUE ISLE COUNTY.

Posen Cream Station.	Vasold Bros. & Co.	Bay City.
Polaski Cream Station.	Vasold Bros. & Co.,	Bay City.
Millerburg Cream Station.	Vasold Bros. & Co.,	Bay City.
Onaway Creamery.	L. E. Cady,	Onaway.

SAGINAW COUNTY.

Frankenmuth Cheese Factory.	Hubinger Bros., Inc.,	Frankenmuth.
Marion Springs Cream Station.	Durand Creamery Co.,	Durand.
Fennmore Cream Station.	Durand Creamery Co.,	Durand.
Buena Vista Cheese Co.,	Leonard Baumgartner,	Saginaw, R. 4.
Merrill Cream Station.	Swift & Co.,	Alma.
Oakley Cream Station.	Flushing Butter Co.,	Flushing.
Chesaning Cream Station.	Flushing Butter Co.,	Flushing.
St. Charles Cream Station.	Flushing Butter Co.,	Flushing.
Brant Cream Station.	Flushing Butter Co.,	Flushing.
Monitor Cheese Co.	Chas. Voss,	Bay City, Sta. A.
Maple Grove Elgin Butter Co.,	Adolph Bueche,	New Lothrop, R. 4.
Blumfield Creamery.	Mathias Janson, Mgr.,	Saginaw, E. S., R. 4.
Flint River Creamery.	J. C. Malone,	Burt.
Parker Dairy Milk Depot.	Parker Dairy Co.,	Saginaw.
Blackmar Cheese Co.,	W. A. Judd, Mgr.,	Fosters, R. 1.
Frankenmuth Cheese Mfg. Co.,	L. Hubinger,	Frankenmuth.
Creamery.	Michigan Creamery Co.,	Saginaw.
Chesaning Cream Station.	Michigan Creamery Co.,	Saginaw.
Freeland Creamery.	Vasold Bros. & Co.,	Bay City.
Bentley Cheese Factory.	H. M. Schmidt Co.,	Saginaw.
Merrill Cream Station.	Breckenridge Creamery Co.,	Breckenridge.
Lakefield Cream Station.	Breckenridge Creamery Co.,	Breckenridge.
St. Charles Cream Station.	Breckenridge Creamery Co.,	Breckenridge.
St. Charles Cream Station.	Medina County Creamery Co.,	Detroit.
Union Cheese Mfg. Co.,	Frankenmuth Cheese Factory,	Frankenmuth.
South Brant Cheese Factory.	T. A. Cook,	Braut.

SANILAC COUNTY.

Name.	Owner or Manager.	Postoffice.
Snover Creamery,	John Harriman,	Snover.
Downington Cheese Factory,	Henry F. Muir,	Deckerville.
Greenleaf Creamery,	Greenleaf Creamery Co.,	Cass City, R. 1.
Union Creamery Co.,	Frank S. Burgess, Mgr.,	Deckerville.
Shabbona Creamery Co.,	R. M. Riley, Mgr.,	Shabbona.
Elmer Creamery,	Shabbona Creamery Co.,	Shabbona.
Minden City Creamery, Inc.,	L. H. Riedel,	Minden City.
Forestville Cream Station,	L. H. Riedel,	Minden City.
Roseburg Butter Co.,	Wm. Fletcher,	Yale, R. 5.
McGregor Cream Station,	Port Huron Creamery Co.,	Port Huron.
Decker Cream Station,	Port Huron Creamery Co.,	Port Huron.
Snover Cream Station,	Port Huron Creamery Co.,	Port Huron.
Marlette Cream Station,	Port Huron Creamery Co.,	Port Huron.
Brown City Cream Station,	Port Huron Creamery Co.,	Port Huron.
Applegate Cream Station,	Port Huron Creamery Co.,	Port Huron.
Croswell Cream Station,	Port Huron Creamery Co.,	Port Huron.
Deckerville Cream Station,	Port Huron Creamery Co.,	Port Huron.
Valley Center Cream Station,	Port Huron Creamery Co.,	Port Huron.
Carsonville Cream Station,	Port Huron Creamery Co.,	Port Huron.
Sandusky Cream Station,	Port Huron Creamery Co.,	Port Huron.
Melvin Cream Station,	Port Huron Creamery Co.,	Port Huron.
Palms Cream Station,	Freeman Dairy Co.,	Flint.
McGregor Cream Station,	Freeman Dairy Co.,	Flint.
Forestville Cream Station,	Ruth Creamery Co.,	Ruth.
Croswell Cream Station,	Hicks & Miller,	Croswell.
LaMotte Cream Station,	Towards Wayne County Creamery,	Detroit.
Red Star Creamery,	Red Star Creamery Ass'n,	Marlette.
Port Sanilac Cream Station,	Fox River Butter Co.,	Detroit.
Brown City Cream Station,	Michigan Creamery Co.,	Saginaw.
Marlette Cream Station,	Michigan Creamery Co.,	Saginaw.
Melvin Cream Station,	Michigan Creamery Co.,	Saginaw.
Croswell Creamery,	Croswell Creamery Co.,	Croswell.
Marlette Cream Station,	Ford Market Creamery,	Highland Park.
Minden City Cream Station,	Ford Market Creamery,	Highland Park.
Brown City Cream Station,	Ford Market Creamery,	Highland Park.
Brown City Cream Station, No. 2.	Ford Market Creamery,	Highland Park.

SCHOOLCRAFT COUNTY.

Germfask Creamery,	L. M. French,	Germfask.
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SHIAWASSEE COUNTY.

Henderson Butter Co.,	J. W. Epton,	Henderson.
Lennon Creamery Co.,	Arthur Alberton, Mgr.,	Lennon.
Henderson Cheese Factory,	Central Supply Co. & M. C. Dowd,	Addison & Hend'son.
Durand Creamery,	Durand Creamery Co.,	Durand.
Shaftsbury Cream Station,	Durand Creamery Co.,	Durand.
Vernon Cream Station,	Durand Creamery Co.,	Durand.
Byron Cream Station,	Durand Creamery Co.,	Durand.
Bancroft Cream Station,	Durand Creamery Co.,	Durand.
Bancroft Cream Station, No. 2,	Durand Creamery Co.,	Durand.
Easton Cream Station,	Durand Creamery Co.,	Durand.
Morrice Creamery,	Blahop Creamery Co.,	Buchanan.
Perry Butter & Cheese Factory,	Halpin Creameries,	Detroit.
Byron Cream Station,	Swift & Co.,	Alma.
Laingsburg Cream Station,	Swift & Co.,	Alma.
Carland Cheese Company,	Lee Head, Mgr.,	Carland.
Vernon Cream Station,	Flushing Butter Co.,	Flushing.
Shaftsbury Cream Station,	Flushing Butter Co.,	Flushing.
Owosso Cream Station,	Detroit Creamery Co.,	Detroit.
Owosso Milk Depot,	O. C. Launstein,	Owosso.
Laingsburg Cream Station,	Michigan Creamery Co.,	Saginaw.
Bancroft Cheese Factory,	MacLaren Imperial Cheese Co.,	Detroit.
New Lothrop Butter Factory,	R. E. Boyce & Co.,	New Lothrop.
New Lothrop Cream Station,	Durand Creamery Co.,	Durand.

ST. CLAIR COUNTY.

Capac Cream Station,	L. R. Glassford,	Capac.
Germania Cheese Factory,	F. J. Haug & Co.,	Marine City, R. 3.
Capac Cream Station,	Durand Creamery Co.,	Durand.
St. Clair Creamery Co.,	Chas. H. Otter,	St. Clair.
Hillside Skimming Station,	St. Clair Creamery Co.,	St. Clair.
Burtchville Creamery,	L. D. Cole,	Blaine.
Maple Grove Cheese Co.,	Simon Babel, Mgr.,	Marine City, R. 3.
Cottleville Cheese Factory,	August Kaatz, Mgr.,	Marine City.
Port Huron Creamery Co.,	John F. Ruff, Mgr.,	Port Huron.
Wales Cream Station,	Port Huron Creamery Co.,	Port Huron.
Burns Cream Station,	Port Huron Creamery Co.,	Port Huron.
Smiths Creek Cream Station,	Port Huron Creamery Co.,	Port Huron.
Kimball Cream Station,	Port Huron Creamery Co.,	Port Huron.
Crockerville Cream Station,	Port Huron Creamery Co.,	Port Huron.

STATE OF MICHIGAN.

ST. CLAIR COUNTY—Continued.

Name.	Owner or Manager.	Postoffice.
Lambs Cream Station,	Port Huron Creamery Co.,	Port Huron.
Columbus Cream Station,	Port Huron Creamery Co.,	Port Huron.
Avoca Cream Station,	Port Huron Creamery Co.,	Port Huron.
Berville Cream Station,	Port Huron Creamery Co.,	Port Huron.
Yale Cream Station,	Port Huron Creamery Co.,	Port Huron.
Yale Cream Station,	Freeman Dairy Co.,	Flint.
Capac Cream Station,	Medina County Creamery Co.,	Detroit.
Avoca Butter Co.,	John Batten, Mgr.,	Avoca.
Emmett Cream Station,	Avoca Butter Co.,	Avoca.
Godells Cream Station,	Avoca Butter Co.,	Avoca.
Pine Grove Cheese Co.,	Andrew Hahn,	Marine City, R. F. D.
Yale Cream Station,	Michigan Creamery Co.,	Saginaw.
Emmet Cream Station,	Ford Market Creamery,	Highland Park.
Yale Cream Station,	Ford Market Creamery,	Highland Park.

ST. JOSEPH COUNTY.

Howardsville Cream Station,	South Bend Creamery Co.,	South Bend, Ind.
Chamberlain Cream Station,	South Bend Creamery Co.,	South Bend, Ind.
Moore Park Cream Station,	South Bend Creamery Co.,	South Bend, Ind.
Pigeon Dairy & Produce Co.,	L. W. & F. W. Falker,	White Pigeon.
Centerville Cream Station,	Jackson Farm Produce Co.,	Jackson.
Colon Cream Station,	Jackson Farm Produce Co.,	Jackson.
Burr Oak Cream Station,	Jackson Farm Produce Co.,	Jackson.
Colon Creamery Co.,	D. L. Akey, Mgr.,	Colon.
Sturgis Dairy Co.,	Walters & Siefert,	Sturgis.
Constantine Cream Station,	South Bend Creamery Co.,	South Bend, Ind.
Constantine Creamery Co.,	Clarence Brody, Mgr.,	Constantine.

TUSCOLA COUNTY.

Gagetown Cheese Factory,	Fred M. Warner Cheese Co.,	Farmington.
Unionville Creamery Co., Ltd.,	D. D. Fox, Mgr.,	Unionville.
Cheese & Butter Factory,	J. F. Cartwright & Sons,	Mayville.
Vassar Condensed Milk Factory,	Vassar Condensed Milk Co.,	Detroit.
Thumb Cooperative Creamery Co.,	W. A. Mudge, Mgr.,	Caro.
Thumb Cooperative Creamery Co.,	W. A. Mudge, Mgr.,	Cass City.
Mayville Creamery Co.,	Geo. Gormsen, Mgr.,	Mayville.
Vassar Creamery,	Halpin Creameries,	Detroit.
Millington Cream Station,	Halpin Creameries,	Detroit.
Juniata Cream Station,	Port Huron Creamery Co.,	Port Huron.
Wilmot Cream Station,	Medina County Creamery Co.,	Detroit.
Arbela Cheese Co.,	J. A. Picket,	Millington.
Millington Cream Station,	Towards Wayne County Creamery,	Detroit.
Kingson Creamery Co.,	J. H. Holmes, Mgr.,	Kingston.
Silverwood Cry. & Cheese Factory,	Albert L. Rice, Prop.,	Silverwood.
Cass City Cream Station,	Fox River Butter Co.,	Detroit.
Stone Road Cheese Co.,	J. C. Kleinath, Mgr.,	Millington, R. I.
Tuscola Cheese Factory,	G. W. Dimond,	Tuscola.
Kingson Cheese Factory,	Pontiac Cooperative Creamery Co.,	Pontiac.
Fairgrove Twp. Cream Station,	Michigan Creamery Co.,	Saginaw.
State Road Cream Station,	Vasold Bros. & Co.,	Bay City.
Quanicasee Cream Station,	Vasold Bros. & Co.,	Bay City.
Richville Creamery,	Richville Cheese & Butter Co.,	Richville.
Cass City Cream Station,	Thumb Creamery Co.,	Caro.
Fairgrove Creamery,	Finlay Bros.,	Fairgrove.
Akron Cheese Factory,	John Gardham,	Akron.
Cass City Cream Station,	C. W. Heller & Son,	Cass City.

VAN BUREN COUNTY.

Base Line Cheese Factory,	Lynn Reid,	Bloomington.
South Haven Creamery,	Joe Bishop,	South Haven.
Lawrence Cooperative Creamery,	Lawrence Cooperative Creamery Co.,	Lawrence.
Gobleville Creamery,	Gobleville Creamery Co.,	Gobleville.
Paw Paw Creamery,	G. N. Manison,	Paw Paw.
Bloomington Cheese Factory,	Davis Haven, Prop.,	Bloomington.
Decatur Creamery Co.,	M. S. Thomas,	Decatur.
Bangor Creamery,	Wood & Trim,	Bangor.
Paw Paw Cream Station,	Michigan Butter Co.,	Kalamazoo.
Hartford Cream Station,	Boylard Creamery Co.,	Grand Rapids.
Walker Creamery Co.,	Walter C. Farrell, Mgr.,	Bloomington.

WASHTENAW COUNTY.

Salem Cream Station,	Detroit Creamery Co.,	Detroit.
Fosters Cream Station,	Towards Wayne County Creamery,	Detroit.
Whittaker Cream Station,	Towards Wayne County Creamery,	Detroit.
Chelsea Cream Station,	John S. Cummings,	Chelsea.
Dexter Cream Station,	John S. Cummings,	Chelsea.
Bridgewater Cream Station,	Fox River Butter Co.,	Detroit.

WAYNE COUNTY.

Name.	Owner or Manager.	Postoffice.
Louis C. Fritz Creamery,	Louis C. Fritz, 182 Arndt St.,	Detroit.
Receiving Station,	Tony Schlaff,	Dearborn.
Nankin Milk Depot,	Chas. Swegles,	Inkster.
Clarenceville Milk Depot,	Elmer Dohany,	Farmington.
John Schlaff Creamery,	John Schlaff, 277 Tillman Ave.,	Detroit.
Mill Road Station,	Goldbrook Creamery, 277 Tillman,	Detroit.
Bell Branch Station,	Goldbrook Creamery, 277 Tillman,	Detroit.
Wallaceville Station,	Goldbrook Creamery, 277 Tillman,	Detroit.
Inkster Station,	Goldbrook Creamery, 277 Tillman,	Detroit.
Van Buren Creamery Co.,	J. Amerman, Mgr.,	Belleville.
Medina County Creamery,	Medina County Creamery Co.,	Detroit.
West Sumpter Cream Station,	Medina County Creamery Co.,	Detroit.
Milk Depot,	E. M. Starkweather,	Northville.
Wyandotte Milk Depot,	Lyman Johnson,	Wyandotte.
J. H. Wilson & Sons Creamery,	J. H. Wilson & Sons Cry. Co., 87	
	Savoy,	Detroit.
Detroit Creamery,	Detroit Creamery Co.,	Detroit.
Canton Cream Station,	Detroit Creamery Co.,	Detroit.
Cherry Hill Cream Station,	Detroit Creamery Co.,	Detroit.
Elm Cream Station,	Detroit Creamery Co.,	Detroit.
Flat Rock Cream Station,	Detroit Creamery Co.,	Detroit.
Hand Cream Station,	Detroit Creamery,	Detroit.
Holland Cream Station,	Detroit Creamery Co.,	Detroit.
Inkster Cream Station,	Detroit Creamery Co.,	Detroit.
Perrinsville Cream Station,	Detroit Creamery Co.,	Detroit.
Plymouth Cream Station,	Detroit Creamery Co.,	Detroit.
Preston Cream Station,	Detroit Creamery Co.,	Detroit.
Stark Cream Station,	Detroit Creamery Co.,	Detroit.
Swegles Cream Station,	Detroit Creamery Co.,	Detroit.
Towards Wayne County Creamery,	Towards Wayne County Creamery,	Detroit.
Belleville Cream Station,	Towards Wayne County Creamery,	Detroit.
Beach Cream Station,	Towards Wayne County Creamery,	Detroit.
Crooks Creamery Cream Station,	Towards Wayne County Creamery,	Detroit.
Denton Cream Station,	Towards Wayne County Creamery,	Detroit.
Gibraltar Cream Station,	Towards Wayne County Creamery,	Detroit.
Newberry Cream Station,	Towards Wayne County Creamery,	Detroit.
Romulus Cream Station,	Towards Wayne County Creamery,	Detroit.
Sand Hill Crane Station,	Towards Wayne County Creamery,	Detroit.
Hamtramck Creamery,	Henry Breitmeyer,	Hamtramck.
Clarenceville Cream Station,	J. H. Wilson & Sons Cry. Co.,	Detroit.
Detroit Creamery, 26 Market St.,	Fox River Butter Co.,	Detroit.
Highland Park Creamery,	Geo. D. Brown,	Highland Park.
Milk Depot, 916 St. Aubin Ave.,	Carl Kramsmann,	Detroit.
Milk Depot, 63 Melrose Ave.,	Frank R. Smith,	Detroit.
Detroit Creamery, 509-19 Gd. River,	Arctic Ice Cream Co.,	Detroit.
Risdon Creamery,	Risdon Cry. Co., 377 Linwood Ave.,	Detroit.
Milk Depot (Geo. Shear, Mgr.),	C. L. Bossardet Creamery Co.,	Detroit.
Milk Depot,	C. L. Bossardet,	Detroit.
Ford Market Creamery,	Edward D. & E. H. Shedd,	Highland Park.
Belle Isle Creamery,	Belle Isle Cry. Co., 282 Sheridan,	Detroit.
Wolverine Creamery,	Wolverine Creamery Products Co.,	Detroit.
Goldberg's Oakland Co. Creamery,	Max Goldberg, Mgr., 501½ Hastings,	Detroit.

WEXFORD COUNTY.

Wexford Cream Station,	Henry Sanford,	Wexford.
Cadillac Cream Station,	Swift & Co.,	Alma.
Manton Cream Station,	Swift & Co.,	Alma.
Mesick Cream Station,	Swift & Co.,	Alma.
Wexford Cream Station,	Swift & Co.,	Alma.
Cadillac Creamery (H. H. Geer),	Cadillac Ice Cream Co.,	Cadillac.
Yuma Cream Station,	Dan Rumsey,	Yuma.
Mesick Cream Station,	A. Bassett,	Mesick.
Harrietta Cream Station,	Larkins Bros.,	Harrietta.
Harrietta Cream Station,	L. B. Bouck & Co.,	Harrietta.
Boon Cream Station,	E. A. Losie,	Boon.
Boon Cream Station,	Aaron Swartz,	Boon.
Harrietta Cream Station,	Barry Bros.,	Harrietta.
Bagnall Cream Station,	Swift & Co.,	Alma.
Buckley Cream Station,	Sanitary Milk Co.,	Grand Rapids.

COMMISSION MERCHANTS

COMMISSION MERCHANTS.

Under Act No. 184, Public Acts of 1913 all commission merchants in the State must obtain a license from this Department on the tenth day of October in each year. The law provides that any shipper who feels aggrieved over a transaction with any licensed commission man in the State, may make complaint of his grievance to this Department and it becomes the duty of the Department to investigate the grievance and if possible to obtain a satisfactory settlement between the parties.

The law further provides that if the commission merchant has been a party of any wrong doing toward any of his customers, the Dairy and Food Commissioner may revoke his license.

The following are the names and addresses of commission merchants licensed under the Act for the year beginning October 10, 1914:

Frank Wise, 374-376 High St., East, Detroit.
Welch & Gamble, 8 Ionia St. S. W., Grand Rapids.
John Carroll, 113-115 Third St., Bay City.
Burt P. White & Co., 411 East High St., Detroit.
J. H. Geymann & Bro., 388 East High St., Detroit.
H. M. Weil & Co., 24 Market St., Detroit.
Wm. L. Benjamin, 471 Gratiot Ave., Detroit.
Chas. Brown & Co., 14-16 Market St., Detroit.
Market Commission Co., 22 Market St., Detroit.
E. M. Cole & Bro., 413 Russell St., Detroit.
Curro & Marchi, 8-10 Market St., Detroit.
Shamii Bros., 355 Russell St., Detroit.
Naumann Commission Co., 30 Market St., Detroit.
A. J. Bloomgarden, 33 Woodbridge St. West, Detroit.
John J. Uller, 415 Russell St., Detroit.
Spangler Davis & Co., 101 N. Water St., Saginaw.
H. B. Burdick Seed House, 101 E. Genesee St., Saginaw.
Schwartz Bros., 108-10 N. Water St., Saginaw.
Wm. Stocker & Sons, 383 Russell St., Detroit.
Powers & Kessler, 115 3rd St., Bay City.
A. B. Perkins Co., 111 3rd St., Bay City.
D. O. Wiley & Co., 20 W. Woodbridge St., Detroit.
Fielding & Kniffin, 433 Winder St., Detroit.
Kalamazoo Cold Storage Co., Kalamazoo.
Michigan Butter & Egg Co., 701 Kalamazoo St., East, Kalamazoo.
J. H. Rose Co., 209 N. Cedar St., Lansing.
Swindell-Taylor Co., 429 N. Church St., Kalamazoo.
Detroit Beef Co., 523 Adelaide St., Detroit.

Chas. W. Rudd & Son, 31 W. Woodbridge St., Detroit.

Riopelle Market Co., 436-450 Riopelle St., Detroit.

Carpenter-Cook Co., Menominee.

R. Hirt, Jr., 34-36 Market St., Detroit.

Brown Produce Co., 372 E. High St., Detroit.

A. Jacob & Co., 24 W. Woodbridge St., Detroit.

Harris & Throop, 777 Michigan Ave., Detroit.

John G. Doan, 311 Ionia Ave. S. W., Grand Rapids.

Edward Read & Son, 26 W. Woodbridge St., Detroit.

Geo. L. Collins & Co., 29 Woodbridge St., West, Detroit.

J. H. Rickard Co., 27 W. Woodbridge St., Detroit.

F. P. Reynolds & Co., 40 Griswold St., Detroit.

Griggs-Fuller & Co., 30 W. Woodbridge St., Detroit.

PROSECUTIONS



STATEMENT OF PROSECUTIONS.

FISCAL YEAR ENDING JUNE 30, 1915.

Cases pending July 1, 1914	36
Cases commenced during fiscal year	284

CASES DISPOSED OF.

Before examining magistrates:	
Defendants bound over	52
Defendants discharged	26
In trial courts:	
Defendants convicted	223
Defendants acquitted	14
Cases pending July 1, 1915	57
Cases pending on appeal	2

COURT PROCEEDINGS.

FISCAL YEAR ENDING JUNE 30, 1915.

CASE NO. 861.

PEOPLE VS. ISAAC VAN WESTENBRUGGE.

Charge: Selling adulterated lard.

In police court, city of Grand Rapids. May 5, 1913: Complaint made. May 6, 1913: Examination held. June 26, 1913: Defendant convicted. Case appealed and pending.

CASE NO. 873.

PEOPLE VS. ISAAC VAN WESTENBRUGGE.

Charge: Selling adulterated lard.

In police court, city of Grand Rapids. June 9, 1913: Complaint made. June 18, 1913: Examination held. Bound over to superior court for trial. Case pending.

CASE NO. 982.

PEOPLE VS. BERNHARDT JACOBS.

Charge: Obstruction of inspector.

In police court, city of Detroit. October 24, 1913: Complaint made. November 11, 1913: Defendant bound over to recorder's court for trial. December 3, 1913: Defendant convicted. Appealed to supreme court. January 4, 1915: Conviction in recorder's court affirmed by supreme court.

STATE OF MICHIGAN.

CASE NO. 1039.

PEOPLE VS. CHAS. MARION.

Charge: Selling renovated butter without stamping.

In justice court, city of Sault Ste. Marie. February 13, 1914: Complaint made.
August 24, 1914: Case dismissed on defendant paying costs.

CASE NO. 1070.

PEOPLE VS. LOUIS GALINSKY.

Charge: Selling diseased pork.

In justice court, city of Boyne City. March 10, 1914: Complaint made. Defendant bound over to circuit court for trial. Sept. 2, 1914: Defendant acquitted.

CASE NO. 1077.

PEOPLE VS. C. A. LITTLE.

Charge: Sale of Tr. Iodine not in conformity with legal standard.

In police court, city of Detroit. March 16, 1914: Complaint made. September 25, 1914: Jury disagree.

CASE NO. 1085.

PEOPLE VS. HENRY MARTINMAKI.

Charge: Sale of sausage containing excessive cereal.

In justice court, city of Houghton. March 24, 1914: Complaint made. Defendant bound over to circuit court. September 5, 1914: Defendant entered a plea of guilty. Sentence suspended on payment of \$15 costs.

CASE NO. 1093.

PEOPLE VS. F. G. LAFER.

Charge: Deceptive advertising.

In police court, city of Detroit. April 1, 1914: Complaint made. Defendant bound over to recorder's court for trial. Case pending.

CASE NO. 1094.

PEOPLE VS. F. G. LAFER.

Charge: Deceptive advertising.

In police court, city of Detroit. April 1, 1914: Complaint made. Defendant bound over to recorder's court for trial. Case pending.

CASE NO. 1095.

PEOPLE VS. F. W. GORDON.

Charge: Selling camphor liniment not in conformity with legal standard.

In police court, city of Detroit. April 2, 1914: Complaint made. Mr. Gordon disposed of business and suit was discontinued.

CASE NO. 1096.

PEOPLE VS. ALBERT WHEATLEY.

Charge: Selling oleomargarine without displaying legal sign.

In justice court, city of Sault Ste. Marie. April 7, 1914: Complaint made. August 24, 1914: Case dismissed on defendant paying \$5. costs.

CASE NO. 1097.

PEOPLE VS. E. C. REIDY.

Charge: Selling renovated butter without stamping.

In justice court, city of Sault Ste. Marie. April 7, 1914: Complaint made August 24, 1914: Case dismissed on defendant paying \$5 costs.

CASE NO. 1098.

PEOPLE VS. W. J. TAPERT (MGR. CORNWELL BEEF CO.).

Charge: Selling sausage containing an excessive amount of cereal.

In justice court, city of Sault Ste. Marie. April 7, 1914: Complaint made. September 8, 1914: Defendant entered a plea of guilty. Fined \$100 and costs.

CASE NO. 1099.

PEOPLE VS. J. A. ROBERG.

Charge: Selling oleomargarine without displaying sign.

In justice court, city of Sault Ste. Marie. April 7, 1914: Complaint made. August 24, 1914: Case dismissed on defendant paying \$5 costs.

CASE NO. 1114.

PEOPLE VS. CLARE F. PUGSLEY.

Charge: Selling sausage containing an excessive amount of cereal.

In justice court, city of Dowagiac. April 23, 1914: Complaint made. April 23, 1914: Defendant bound over to circuit court for trial. September 14, 1914: Defendant entered a plea of guilty. Fined \$100 and costs.

CASE NO. 1115.

PEOPLE VS. CLARENCE SQUIRES.

Charge: Selling sausage containing an excessive amount of cereal.

In justice court, city of Dowagiac. April 23, 1914: Complaint made. April 23, 1914: Defendant bound over to the circuit court for trial. September 14, 1914: Defendant entered a plea of guilty. Fined \$100 and costs.

CASE NO. 1116.

PEOPLE VS. W. A. PORTEOUS, MGR. HAY MFG. CO.

Charge: Selling salad dressing on which the net weight was incorrectly stated.

In police court, city of Detroit. May 1, 1914: Complaint made. May 22, 1914: Defendant bound over to recorder's court for trial. September 4, 1914: Case dismissed.

CASE NO. 1125.

PEOPLE VS. MAX KOHN.

Charge: Using cereal in the manufacture of sausage and not stamping same.

In justice court, city of Detroit. May 27, 1914: Complaint made. June 4, 1914: Defendant bound over to circuit court for trial. September 28, 1914: Case dismissed.

STATE OF MICHIGAN.

CASE NO. 1126.

PEOPLE VS. DELL A. CHRISTY.

Charge: Selling sausage containing an excessive amount of cereal.
In justice court, city of Detroit. May 27, 1914: Complaint made. June 4,
1914: Defendant bound over to recorder's court for trial. Case pending.

CASE NO. 1127.

PEOPLE VS. MCBRIDE, EARL & POLLARD.

Charge: Using saccharin in the manufacture of pop.
In police court, city of Detroit. May 27, 1914: Complaint made. July 14,
1914: Case dismissed.

CASE NO. 1133.

PEOPLE VS. JOHN A. PETERS.

Charge: Selling sausage containing an excessive amount of cereal.
In police court, city of Detroit. June 8, 1914: Complaint made. June 6, 1914:
Defendant bound over to recorder's court. Defendant convicted. Sentence pend-
ing awaiting appeal.

CASE NO. 1134.

PEOPLE VS. HARLAN LACKY.

Charge: Selling sausage containing an excessive amount of cereal.
In justice court, city of Dowagiac. June 9, 1914: Complaint made. Defend-
ant waived examination and was bound over to circuit court for trial. September
14, 1914: Defendant entered a plea of guilty. Fined \$100 and costs.

CASE NO. 1135.

PEOPLE VS. BOERSINA & SONS.

Charge: Selling sausage containing an excessive amount of cereal.
In recorder's court, city of Cadillac. June 9, 1914: Complaint made. Novem-
ber 6, 1914: Defendant entered a plea of guilty. Fined \$15 and costs.

CASE NO. 1136.

PEOPLE VS. CURTIS & GRANT.

Charge: Selling sausage containing an excessive amount of cereal.
In recorder's court, city of Cadillac. June 9, 1914: Complaint made. Novem-
ber 6, 1914: Defendant entered a plea of guilty. Fined \$15 and costs.

CASE NO. 1137.

PEOPLE VS. HARRY H. KINGSLEY.

Charge: Selling sausage containing an excessive amount of cereal.
In recorder's court, city of Cadillac. June 9, 1914: Complaint made. No-
vember 6, 1914: Defendant entered a plea of guilty. Fined \$15 and costs.

CASE NO. 1138.

PEOPLE VS. MCCOY & MARCUS.

Charge: Selling sausage containing cereal without labeling.

In recorder's court, city of Cadillac. June 9, 1914: Complaint made. November 6, 1914: Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1157.

PEOPLE VS. EXCELSIOR PHARMACY.

Charge: Selling Tr. Iodine not in conformity with U. S. P. requirements.

In police court, city of Detroit. June 16, 1914: Complaint made. Case dismissed.

CASE NO. 1158.

PEOPLE VS. ROBINSON PHARMACY.

Charge: Selling camphor liniment not in conformity with legal requirements.

In police court, city of Detroit. June 16, 1914: Complaint made. June 22, 1914: Defendant bound over to recorder's court for trial. November 16, 1914: Defendant convicted. Fined \$25 and costs.

CASE NO. 1159.

PEOPLE VS. GRAHAM O. MOOMBER.

Charge: Sale of drug containing morphine and alcohol not legally labeled.

In justice court, city of St. Joseph. June 17, 1914: Complaint made. Defendant waived examination and was bound over to circuit court for trial. September 22, 1914: Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1160.

PEOPLE VS. DWIGHT C. PARKER.

Charge: Sale of sausage containing cereal without stamping.

In justice court of Paw Paw. June 19, 1914: Complaint made. Defendant waived examination and was bound over to circuit court for trial. June 22, 1914: Defendant entered a plea of guilty. Fined \$100 and costs.

CASE NO. 1161.

PEOPLE VS. WILBUR J. WARNER.

Charge: Selling Hamburg Steak containing sulphites.

In justice court of Paw Paw. June 19, 1914: Complaint made. Defendant waived examination and was bound over to circuit court for trial. June 22, 1914: Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1162.

PEOPLE VS. PROPRIETOR CO-OPERATIVE HOTEL, CADILLAC.

Charge: Serving oleomargarine in hotel without displaying sign.

In recorder's court, city of Cadillac. June 30, 1914: Complaint made. Defendant bound over to circuit court for trial. November 6, 1914: Defendant entered a plea of guilty. Sentence suspended on payment of costs.

STATE OF MICHIGAN.

CASE NO. 1163.

PEOPLE VS. FRANK CORNWELL.

Charge: Selling oleomargarine without displaying sign.

In police court, city of Cadillac. June 30, 1914: Complaint made. Defendant bound over to circuit court for trial. November 6, 1914: Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1164.

PEOPLE VS. SMITH & LAKE.

Charge: Selling sausage containing excessive cereal.

In justice court, city of Petoskey. July 6, 1914: Complaint made. Case pending.

CASE NO. 1165.

PEOPLE VS. HORACE B. FOWLER.

Charge: Selling sausage containing excessive cereal.

In justice court, city of Charlevoix. July 7, 1914: Complaint made. Bound over to circuit court for trial. July 29, 1914: Defendant entered a plea of guilty. Fined \$100 and costs.

CASE NO. 1166.

PEOPLE VS. MARTIN BLOCK.

Charge: Selling sausage containing excessive cereal.

In justice court, city of Charlevoix. July 7, 1914: Complaint made. Bound over to circuit court for trial. July 29, 1914: Defendant entered a plea of guilty. Fined \$100 and costs.

CASE NO. 1167.

PEOPLE VS. FRANK WALTMAN.

Charge: Selling sausage containing excessive cereal.

In police court, city of Bay City. July 7, 1914: Complaint made. Defendant waived examination and was bound over to circuit court for trial. Case pending.

CASE NO. 1168.

PEOPLE VS. PAUL WALTER.

Charge: Selling sausage containing excessive cereal.

In police court, city of Bay City. July 7, 1914: Complaint made. July 29, 1914: Defendant waived examination and was bound over to circuit court for trial. Case pending.

CASE NO. 1169.

PEOPLE VS. ED. L. BAUMGARTEN.

Charge: Selling sausage containing excessive cereal.

In police court, city of Bay City. July 7, 1914: Complaint made. July 29, 1914: Case dismissed and new complaint issued.

CASE NO. 1170.

PEOPLE VS. CONRAD GUNTERMAN.

Charge: Selling sausage containing excessive cereal.
In police court, city of Bay City. July 7, 1914: Complaint made. July 29, 1914: Defendant waived examination and was bound over to circuit court for trial. Case pending.

CASE NO. 1171.

PEOPLE VS. CARL DEHN.

Charge: Selling sausage containing excessive cereal.
In police court, city of Bay City. July 7, 1914: Complaint made. Bound over to circuit court for trial. December 15, 1914: Defendant convicted. Pending for sentence or appeal.

CASE NO. 1172.

PEOPLE VS. GEORGE ZIMMER.

Charge: Selling sausage containing excessive cereal.
In police court, city of Bay City. July 7, 1914: Complaint made. July 29, 1914: Defendant waived examination and was bound over to circuit court for trial. Case pending.

CASE NO. 1173.

PEOPLE VS. CHAS. C. SCHULTZ.

Charge: Selling sausage containing excessive cereal.
In police court, city of Bay City. July 7, 1914: Complaint made. July 29, 1914: Defendant waived examination and was bound over to circuit court for trial. Case pending.

CASE NO. 1174.

PEOPLE VS. STANLEY WOJCIECHOWSKI.

Charge: Selling sausage containing excessive cereal.
In police court, city of Bay City. July 7, 1914: Complaint made. July 29, 1914: Defendant waived examination and was bound over to circuit court for trial. Case pending.

CASE NO. 1175.

PEOPLE VS. VALENTINE HADYNSKI.

Charge: Selling sausage containing excessive cereal.
In police court, city of Bay City. July 7, 1914: Complaint made. July 29, 1914: Defendant waived examination and was bound over to circuit court for trial. Case pending.

CASE NO. 1176.

PEOPLE VS. JOSEPH BUDZINSKI.

Charge: Selling sausage containing excessive cereal.
In police court, city of Bay City. July 7, 1914: Complaint made. July 29, 1914: Defendant waived examination and was bound over to circuit court for trial. Case pending.

STATE OF MICHIGAN.

CASE NO. 1177.

PEOPLE VS. ALLEN SCHREUR.

Charge: Selling sausage containing excessive cereal.
In justice court, village of Gaylord. July 8, 1914: Complaint made. Defendant waived examination and was bound over to circuit court for trial. July 30, 1914: Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1178.

PEOPLE VS. MIKE MURPHY.

Charge: Selling adulterated milk.
In justice court, city of Mt. Pleasant. July 8, 1914: Complaint made. July 9, 1914: Defendant entered a plea of guilty. Fined \$50.

CASE NO. 1179.

PEOPLE VS. FRANK COUGHLIN.

Charge: Selling adulterated milk.
In justice court, city of Mt. Pleasant. July 8, 1914: Complaint made. July 9, 1914: Defendant entered a plea of guilty. Fined \$50.

CASE NO. 1180.

PEOPLE VS. JAMES DANIELS.

Charge: Selling adulterated milk.
In justice court, city of Mt. Pleasant. July 8, 1914: Complaint made. July 9, 1914: Defendant entered a plea of guilty. Fined \$50.

CASE NO. 1181.

PEOPLE VS. J. COOPER.

Charge: Selling adulterated milk.
In justice court, city of Mt. Pleasant. July 9, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$50.

CASE NO. 1182.

PEOPLE VS. DENNIS TORPEY.

Charge: Selling adulterated milk.
In justice court, city of Mt. Pleasant. July 8, 1914: Complaint made. July 9, 1914: Defendant entered a plea of guilty. Fined \$50.

CASE NO 1183.

PEOPLE VS. GROVER MCLAUGHLIN.

Charge: Selling adulterated milk.
In justice court, city of Mt. Pleasant. July 8, 1914: Complaint made. July 9, 1914: Defendant entered a plea of guilty. Fined \$35.

CASE NO. 1184.

PEOPLE VS. D. N. CORNELL.

Charge: Selling sausage containing excessive cereal.

In justice court, village of Thompsonville. July 8, 1914: Complaint made.
October 22, 1914: Defendant entered a plea of guilty. Fined \$100.

CASE NO. 1185.

PEOPLE VS. FRANK NOA.

Charge: Selling adulterated lard.

In justice court, village of Gaylord. July 8, 1914: Complaint made. Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1186.

PEOPLE VS. E. CARR & SON.

Charge: Selling adulterated lard.

In justice court, village of Gaylord. July 8, 1914: Complaint made. Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1187.

PEOPLE VS. JAMES W. LOCKHART.

Charge: Selling diseased meat.

In justice court, village of Frankfort. July 10, 1914: Complaint made. Defendant was bound over to circuit court for trial. July 10, 1914: Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1188.

PEOPLE VS. GEORGE W. RUPRIGHT.

Charge: Selling oleomargarine without displaying sign.

In justice court, village of Frankfort. July 9, 1914: Complaint made. July 10, 1914: Defendant entered a plea of guilty. Fined \$50 and costs.

CASE NO. 1189.

PEOPLE VS. HENRY BOTBYL.

Charge: Selling renovated butter without stamping.

In justice court, city of Grand Haven. July 15, 1914: Complaint made. July 16, 1914: Defendant bound over to circuit court for trial. September 11, 1914: Defendant convicted. Fined \$25 and costs.

CASE NO. 1190.

PEOPLE VS. THOMASMA BROS.

Charge: Selling sausage containing excessive cereal.

In police court, city of Grand Rapids. July 16, 1914: Complaint made. Case dismissed.

STATE OF MICHIGAN.

CASE NO. 1191.

PEOPLE VS. JOHN S. MESORICK.

Charge: Selling sausage containing excessive cereal.

In police court, city of Grand Rapids, July 16, 1914: Complaint made. Bound over to superior court for trial. August 4, 1914: Entered plea of guilty. Fined \$100 and costs.

CASE NO. 1192.

PEOPLE VS. MARTIN ZINSER.

Charge: Selling sausage containing excessive cereal.

In police court, city of Grand Rapids. July 16, 1914: Complaint made. July 17, 1914: Defendant bound over to superior court for trial. October 9, 1914: Defendant entered a plea of guilty. Fined \$100 and costs.

CASE NO. 1193.

PEOPLE VS. FRED BUREAU.

Charge: Selling peck of potatoes short weight.

In justice court, city of Marquette. July 20, 1914: Complaint made. July 20, 1914: Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO. 1194.

PEOPLE VS. FRANK LABONTE.

Charge: Selling peck of potatoes short weight.

In justice court, city of Marquette. July 20, 1914: Complaint made. July 21, 1914: Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO. 1195.

PEOPLE VS. JACOB SANFORD.

Charge: Selling Hamburg Steak containing sulphites.

In police court, city of Grand Rapids. July 21, 1914: Complaint made. October 5, 1914: Defendant entered a plea of guilty. Sentence pending.

CASE NO. 1196.

PEOPLE VS. FRED AXFORD.

Charge: Selling sausage containing excessive cereal.

In justice court, city of Owosso. July 30, 1914: Complaint made. August 27, 1914: Defendant waived examination and was bound over to circuit court for trial. September 21, 1914: Defendant entered a plea of guilty. Fined \$10.

CASE NO. 1197.

PEOPLE VS. MRS. NETTIE JOHNSON.

Charge: Selling adulterated milk.

In justice court, city of Owosso. July 30, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$10 and costs.

CASE NO. 1198.

PEOPLE VS. WILL MAY.

Charge: Selling adulterated milk.
In justice court, city of Owosso. July 30, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$10 and costs.

CASE NO. 1199.

PEOPLE VS. ANTON GREILICH.

Charge: Selling sausage containing excessive cereal.
In justice court, city of Owosso. July 30, 1914: Complaint made. Defendant waived examination and was bound over to circuit court for trial. September 21, 1914: Defendant entered a plea of guilty. Fined \$10.

CASE NO. 1200.

PEOPLE VS. G. A. ROYER.

Charge: Selling sausage containing excessive cereal.
In justice court, village of Mendon. August 3, 1914: Complaint made. August 3, 1914: Defendant waived examination and was bound over to circuit court for trial. November 9, 1914: Defendant entered a plea of guilty. Fined \$100 and costs.

CASE NO. 1201.

PEOPLE VS. IGNATZ W. GARDULA.

Charge: Selling camphor liniment not in conformity with legal requirements.
In police court, city of Detroit. August 4, 1914: Complaint made. August 14, 1914: Defendant bound over to recorder's court for trial. Case pending.

CASE NO. 1202.

PEOPLE VS. HENRY BARBER.

Charge: Sale of sausage containing excessive cereal.
In justice court, city of Cheboygan. August 4, 1914: Complaint made. Aug. 27, 1914: Defendant bound over to circuit court for trial. Case pending.

CASE NO. 1203.

PEOPLE VS. THOMAS STEVENSON.

Charge: Sale of sausage containing cereal without stamping.
In justice court, city of Cheboygan. August 4, 1914: Complaint made. Aug. 28, 1914: Case dismissed.

CASE NO. 1204.

PEOPLE VS. CURTIS FAIRCHILD.

Charge: Sale of adulterated milk.
In justice court, city of Cheboygan. August 4, 1914: Complaint made. Aug. 28, 1914: Defendant entered a plea of guilty. Fined \$1 and costs.

STATE OF MICHIGAN.

CASE NO. 1205.

PEOPLE VS. D. J. MCDONALD.

Charge: Sale of lard compound without stamping.

In justice court, city of Cheboygan. August 5, 1914: Complaint made. Case dismissed owing to disappearance of material witness.

CASE NO. 1206.

PEOPLE VS. JOHN A. GARROW.

Charge: Sale of sausage containing excessive cereal.

In justice court, city of Cheboygan. August 5, 1914: Complaint made. Aug. 27, 1914: Defendant bound over to circuit court for trial. October 15, 1914: Case dismissed.

CASE NO. 1207.

PEOPLE VS. C. L. MERRY.

Charge: Shipping unwashed ice-cream cans.

In justice court, village of Gaylord. August 5, 1914: Complaint made. September 5, 1914: Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1208.

PEOPLE VS. WM. MURRAY.

Charge: Sale of insanitary cream.

In justice court, city of Kalamazoo. August 7, 1914: Complaint made. Aug. 10, 1914: Defendant entered a plea of guilty. Fined \$22.50 and costs.

CASE NO. 1209.

PEOPLE VS. ELI CASE.

Charge: Sale of insanitary cream.

In justice court, city of Kalamazoo. August 7, 1914: Complaint made. Aug. 10, 1914: Defendant entered a plea of guilty. Fined \$22.50 and costs.

CASE NO. 1210.

PEOPLE VS. MICHAEL HOGAN.

Charge: Having insanitary barn.

In police court, city of Muskegon. August 10, 1914: Complaint made. November 30, 1914: Defendant convicted. Fined \$15 and costs.

CASE NO. 1211.

PEOPLE VS. MRS. M. O. SEWARD.

Charge: Shipping unwashed ice cream cans.

In justice court, city of St. Ignace. August 8, 1914: Complaint made. Aug. 10, 1914: Defendant entered a plea of guilty. Fined \$5 and costs.

CASE NO. 1212.

PEOPLE VS. OLIVER MASSEY.

Charge: Shipping unwashed ice cream cans.
In justice court, city of St. Ignace. August 8, 1914: Complaint made. Aug. 13, 1914: Defendant entered a plea of guilty. Fined \$5 and costs.

CASE NO. 1213.

PEOPLE VS. FRED PETERSON.

Charge: Having insanitary barn.
In police court, city of Muskegon. August 10, 1914: Complaint made. Aug. 11, 1914: Defendant entered a plea of guilty. Fined \$15.

CASE NO. 1214.

PEOPLE VS. McDONALD RESIDE.

Charge: Having insanitary barn.
In police court, city of Muskegon. August 10, 1914: Complaint made. Aug. 11, 1914: Defendant entered a plea of guilty. Fined \$15.

CASE NO. 1215.

PEOPLE VS. WM. HOWARD BLECH.

Charge: Having insanitary barn.
In police court, city of Muskegon. August 10, 1914: Complaint made. Aug. 11, 1914: Defendant entered a plea of guilty. Fined \$15.

CASE NO. 1216.

PEOPLE VS. F. H. SANFORD.

Charge: Having insanitary barn.
In police court, city of Muskegon. August 10, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$15.

CASE NO. 1217.

PEOPLE VS. JOHN JAMES.

Charge: Selling 1 bushel potatoes short weight.
In justice court, city of Manistique. August 14, 1914: Complaint made. Aug. 20, 1914: Defendant convicted. Appealed to circuit court. January 6, 1915: Defendant acquitted in circuit court.

CASE NO. 1218.

PEOPLE VS. OSCAR OLSON.

Charge: Selling peck potatoes short weight.
In justice court, city of Manistique. August 14, 1914: Complaint made. Aug. 14, 1914: Defendant entered a plea of guilty. Fined \$20.

CASE NO. 1219.

PEOPLE VS. ALFONSE LEONARDELLI.

Charge: Shipping unwashed ice cream cans.
In justice court, city of Iron Mountain. August 14, 1914: Complaint made. August 14, 1914: Defendant entered a plea of guilty. Fined \$10 and costs.

STATE OF MICHIGAN.

CASE NO. 1220.

PEOPLE VS. C. D. WILBUR.

Charge: Sale of adulterated milk.

In justice court, city of Battle Creek. August 15, 1914: Complaint made.
Defendant entered a plea of guilty. Fined \$10 and costs.

CASE NO. 1221.

PEOPLE VS. JOHN M. LAMPKY.

Charge: Sale of insanitary cream.

In justice court, city of Battle Creek. August 24, 1914: Complaint made.
August 26, 1914: Defendant entered a plea of guilty. Fined \$10 and costs.

CASE NO. 1222.

PEOPLE VS. ROY H. COMSTOCK.

Charge: Sale of peck potatoes short weight.

In justice court, city of Petoskey. August 24, 1914: Complaint made. September 22, 1914: Examination held. October 6, 1914: Defendant acquitted.

CASE NO. 1223.

PEOPLE VS. WILLIAM U. FAUNCE.

Charge: Sale of peck potatoes short weight.

In justice court, city of Petoskey. August 24, 1914: Complaint made. August 27, 1914: Defendant entered a plea of guilty. Fined \$20.

CASE NO. 1224.

PEOPLE VS. MRS. CORNELIUS E. SULLIVAN.

Charge: Sale of peck potatoes short weight.

In justice court, city of Petoskey. August 24, 1914: Complaint made. August 27, 1914: Defendant entered a plea of guilty. Fined \$20.

CASE NO. 1225.

PEOPLE VS. WM. YASTER.

Charge: Sale of adulterated milk.

In justice court, city of Flint. August 26, 1914: Complaint made. August 28, 1914: Defendant entered a plea of guilty. Fined \$10 and costs.

CASE NO. 1226.

PEOPLE VS. WM. A. LEWIS.

Charge: Sale of renovated butter for creamery butter.

In police court, city of Detroit. August 26, 1914: Complaint made. Case dismissed.

CASE NO. 1227.

PEOPLE VS. JAMES B. SAELS.

Charge: Sale of colored oleomargarine.

In police court, city of Detroit. August 26, 1914: Complaint made. October 2, 1914. Case dismissed.

CASE NO. 1228.

PEOPLE VS. EDWARD ROULO.

Charge: Sale of colored oleomargarine.

In police court, city of Detroit. August 26, 1914: Complaint made. October 2, 1914: Case dismissed.

CASE NO. 1229.

PEOPLE VS. FRED SMITH.

Charge: Sale of insanitary milk.

In justice court, city of Battle Creek. August 26, 1914: Complaint made. Defendant entered a plea of guilty. Sentence suspended.

CASE NO. 1230.

PEOPLE VS. DAVID WELLS.

Charge: Sale of insanitary milk.

In justice court, city of Battle Creek. August 26, 1914: Complaint made. August 29, 1914: Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1231.

PEOPLE VS. HENRY ROSEMA.

Charge: Sale of unwholesome veal.

In police court, city of Muskegon. August 27, 1914: Complaint made. Defendant entered a plea of guilty. Sentence pending.

CASE NO. 1232.

PEOPLE VS. JOSEPH W. PALMER OF BRIMLEY.

Charge: Shipping unwashed ice cream cans.

In justice court, city of Sault Ste. Marie. August 27, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$5 and costs.

CASE NO. 1233.

PEOPLE VS. PATRICK GALLAGHER.

Charge: Sale of sausage containing cereal without stamping.

In justice court, city of St. Ignace. August 28, 1914: Complaint made. September 3, 1914: Defendant dismissed on payment of costs.

CASE NO. 1234.

PEOPLE VS. MARTIN FAIR.

Charge: Sale of sausage containing cereal without stamping.

In justice court, city of St. Ignace. August 28, 1914: Complaint made. September 3, 1914: Defendant dismissed on payment of costs.

CASE NO. 1235.

PEOPLE VS. ROBERT SUMMERS.

Charge: Sale of adulterated milk.

In justice court of Mackinaw City. August 28, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$5 and costs.

STATE OF MICHIGAN.

CASE NO. 1236.

PEOPLE VS. LEWIS S. WALTER.

Charge: Sale of lard compound without stamping.

In justice court, city of Traverse City. September 4, 1914: Complaint made.
September 9, 1914: Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1237.

PEOPLE VS. JOHN FRANKLIN.

Charge: Violation of table grape law.

In justice court, city of St. Joseph. September 5, 1914: Complaint made. Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1238.

PEOPLE VS. A. C. BEREMAL.

Charge: Violation of table grape law.

In justice court, city of St. Joseph. September 5, 1914: Complaint made.
October 19, 1914: Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1239.

PEOPLE VS. B. J. EAMAN.

Charge: Violation of table grape law.

In justice court, city of St. Joseph. September 9, 1914: Complaint made.
October 10, 1914: Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1240.

PEOPLE VS. G. W. PETERS.

Charge: Violation of table grape law.

In justice court, city of St. Joseph. September 8, 1914: Complaint made.
October 19, 1914: Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1241.

PEOPLE VS. CHAS. CAPATAN.

Charge: Sale of adulterated milk.

In justice court, city of Owosso. September 9, 1914: Complaint made. October 14, 1914: Defendant acquitted.

CASE NO. 1242.

PEOPLE VS. WARREN STERNMAN.

Charge: Sale of adulterated milk.

In justice court, city of Owosso. September 9, 1914: Complaint made. September 10, 1914: Defendant entered a plea of guilty. Fined \$10.

CASE NO. 1243.

PEOPLE VS. C. ASA TRAVISS.

Charge: The use of excessive cereal in sausage.

In justice court, city of Grayling. September 10, 1914: Complaint made. Defendant waived examination and was bound over to circuit court for trial. January 12, 1915: Defendant acquitted.

CASE NO. 1244.

PEOPLE VS. FRANK H. MILKS.

Charge: Selling sausage containing excessive cereal.

In justice court, city of Grayling. September 10, 1914: Complaint made. Defendant waived examination and was bound over to circuit court for trial. Case pending.

CASE NO. 1245.

PEOPLE VS. CHRIST RUFF.

Charge: Violation of table grape law.

In justice court, city of St. Joseph. September 10, 1914: Complaint made. Defendant entered a plea of guilty. Sentence suspended.

CASE NO. 1246.

PEOPLE VS. NELSON C. EMERY.

Charge: Violation of fruit law.

In justice court, city of St. Joseph. September 10, 1914: Complaint made. Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1247.

PEOPLE VS. CARL SCHEADER.

Charge: Violation of table grape law.

In justice court, city of St. Joseph. September 10, 1914: Complaint made. Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1248.

PEOPLE VS. ALBERT HAFFER.

Charge: Violation of table grape law.

In justice court, city of St. Joseph. September 10, 1914: Complaint made. Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1249.

PEOPLE VS. WM. E. HAZELL.

Charge: Not stamping sausage containing cereal.

In justice court, city of Alpena. September 17, 1914: Complaint made. Bound over to circuit court for trial. Case pending.

CASE NO. 1250.

PEOPLE VS. AUGUST KANOWSKI.

Charge: Not stamping sausage containing cereal.

In justice court, city of Alpena. September 17, 1914: Complaint made. Bound over to circuit court for trial. December 8, 1914: Defendant acquitted.

STATE OF MICHIGAN.

CASE NO. 1251.

PEOPLE VS. CHRIS NILSON.

Charge: Selling sausage containing excessive cereal.

In justice court, city of Alpena. September 17, 1914: Complaint made. Defendant bound over to circuit court for trial. Case pending.

CASE NO. 1252.

PEOPLE VS. W. J. GABREYSIAC.

Charge: Selling sausage containing cereal without stamping.

In justice court, city of Alpena. September 17, 1914: Complaint made. Defendant bound over to circuit court for trial. Case pending.

CASE NO. 1253.

PEOPLE VS. JOHN B. MARKOWSKI.

Charge: Selling sausage containing excessive cereal.

In justice court, city of Alpena. September 17, 1914: Complaint made. Defendant bound over to circuit court for trial. Case pending.

CASE NO. 1254.

PEOPLE VS. LOUIS T. ST. ONGE.

Charge: Selling sausage containing excessive cereal.

In justice court, city of Alpena. September 17, 1914: Complaint made. Defendant bound over to circuit court for trial. Case pending.

CASE NO. 1255.

PEOPLE VS. M. A. SHUBERT.

Charge: Selling sausage containing cereal without stamping.

In justice court, city of Alpena. September 17, 1914: Complaint made. Defendant bound over to circuit court for trial. Case pending.

CASE NO. 1256.

PEOPLE VS. J. LOUIS ST. JOHN.

Charge: Selling sausage containing excessive cereal.

In justice court, city of Alpena. September 17, 1914: Complaint made. Defendant bound over to circuit court for trial. Case pending.

CASE NO. 1257.

PEOPLE VS. DAN DUCHENE.

Charge: Selling sausage containing excessive cereal.

In justice court, city of Alpena. September 17, 1914: Complaint made. Defendant bound over to circuit court for trial. Case pending.

CASE NO. 1258.

PEOPLE VS. ALBERT KRUGER.

Charge: Selling sausage containing cereal without stamping.

In justice court, city of Alpena. September 17, 1914: Complaint made. Defendant bound over to circuit court for trial. Case pending.

CASE NO. 1259.

PEOPLE VS. ED F. KRAMM.

Charge: Selling sausage containing an excessive amount of cereal.
In justice court, city of Alpena. September 17, 1914: Complaint made. Bound over to circuit court for trial. December 8, 1914: Defendant convicted.

CASE NO. 1260.

PEOPLE VS. J. WALLE & SON.

Charge: Selling sausage containing cereal without stamping.
In justice court, city of Alpena. September 17, 1914: Complaint made. Defendant bound over to circuit court for trial. Case pending.

CASE NO. 1261.

PEOPLE VS. WM. H. BERK.

Charge: Sale of adulterated butter.
In police court, city of Detroit. September 18, 1914: Complaint made. Defendant bound over to recorder's court for trial. Case pending.

CASE NO. 1262.

PEOPLE VS. HENRY LAMB.

Charge: Sale of adulterated milk.
In justice court of Rogers. September 18, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$10 and costs.

CASE NO. 1263.

PEOPLE VS. ABRAHAM PIZWITZ.

Charge: Violation of fruit law.
In justice court, city of Benton Harbor. September 18, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$1 and costs.

CASE NO. 1264.

PEOPLE VS. TRUMAN BELLINGER.

Charge: Violation of fruit law.
In justice court, city of St. Joseph. September 19, 1914: Complaint made. Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1265.

PEOPLE VS. F. H. PAYNE.

Charge: Violation of table grape law.
In justice court, city of St. Joseph. September 19, 1914: Complaint made. Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1266.

PEOPLE VS. GEO. SHIRLEY.

Charge: Violation of fruit law.
In justice court, city of Benton Harbor. September 22, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$2 and costs.

STATE OF MICHIGAN.

CASE NO. 1267.

PEOPLE VS. THOS. LUDWICK.

Charge: Sale of adulterated milk.

In justice court, city of Coldwater. September 21, 1914: Complaint made.
Defendant entered a plea of guilty. Fined \$10 and costs.

CASE NO. 1268.

PEOPLE VS. PETER FERRO.

Charge: Shipping unclean ice cream cans.

In justice court, city of Sturgis. September 21, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$50 and costs.

CASE NO. 1269.

PEOPLE VS. FRANK CLAARE.

Charge: Sale of adulterated milk.

In justice court, city of Coldwater. September 21, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$10 and costs.

CASE NO. 1270.

PEOPLE VS. CHRIST FELLNER.

Charge: Violation of fruit law.

In justice court, city of St. Joseph. September 28, 1914: Complaint made. Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1271.

PEOPLE VS. CHRIST GWINNER.

Charge: Selling sausage containing excessive cereal.

In police court, city of Jackson. September 28, 1914: Complaint made. Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1272.

PEOPLE VS. JOHN MOBERG.

Charge: Selling adulterated milk.

In justice court, village of Stephenson. October 2, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$10 and costs.

CASE NO. 1273.

PEOPLE VS. RALPH G. MITTER.

Charge: Selling Tr. Iodine not in conformity with legal standard.

In police court, city of Detroit. October 5, 1914: Complaint made. Case dismissed.

CASE NO. 1274.

PEOPLE VS. C. A. HASSEL.

Charge: Selling potatoes short weight.

In justice court, city of Menominee. October 6, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO. 1275.

PEOPLE VS. THOS. OBEN.

Charge: Selling sausage containing excessive cereal.
In justice court of Rogers. October 9, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$100.

CASE NO. 1276.

PEOPLE VS. CARL J. WILLIS.

Charge: Violation sugar beet law. (Fraudulent sample.)
In justice court, city of Ithaca. October 14, 1914: Complaint made. November 10, 1914: Defendant discharged.

CASE NO. 1277.

PEOPLE VS. ERNEST CULVER.

Charge: Violation sugar beet law. (Tare men not sworn in.)
In justice court, city of Ithaca. October 14, 1914: Complaint made. October 26, 1914: Defendant discharged.

CASE NO. 1278.

PEOPLE VS. NICHOLAS W. WIREBAUGH.

Charge: Violation sugar beet law. (Fraudulent test.)
In justice court, city of Ithaca. October 14, 1914: Complaint made. October 26, 1914: Defendant discharged.

CASE NO. 1279.

PEOPLE VS. J. LEVINSON.

Charge: Violation fruit law.
In justice court, city of Benton Harbor. October 14, 1914: Complaint made. Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1280.

PEOPLE VS. J. MILLER.

Charge: Violation of fruit law.
In justice court, city of Benton Harbor. October 14, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$2 and costs.

CASE NO. 1281.

PEOPLE VS. FRED SCHAEER.

Charge: Violation of fruit law.
In justice court, city of Benton Harbor. October 14, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$5 and costs.

CASE NO. 1282.

PEOPLE VS. FRANK OVERMYER.

Charge: Violation sugar beet law.
In justice court, city of Charlotte. October 19, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$5 and costs.

CASE NO. 1283.

PEOPLE VS. JOHN SHARKEY.

Charge: Violation of sugar beet law.

In justice court, city of Charlotte. October 19, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$7.50 costs.

CASE NO. 1284:

PEOPLE VS. PETER NAYLOR.

Charge: Selling sausage containing excessive cereal.

In justice court, city of Traverse City. October 20, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$100 and costs.

CASE NO. 1285.

PEOPLE VS. JOHN BACCHI.

Charge: Selling sausage containing cereal without stamping.

In justice court, city of Bellaire. October 21, 1914: Complaint made. February 9, 1915: Defendant entered a plea of guilty. Sentence pending.

CASE NO. 1286.

PEOPLE VS. L. M. WOOD.

Charge: Sale of insanitary milk.

In justice court, city of Charlotte. October 26, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$10.

CASE NO. 1287.

PEOPLE VS. E. WILSON CRESSEY.

Charge: Violation sugar beet law. (Beet law not posted).

In justice court, city of Saginaw. October 27, 1914: Complaint made. Case nolle prossed.

CASE NO. 1288.

PEOPLE VS. RAY CADWELL.

Charge: Selling sausage containing excessive cereal.

In police court, city of Grand Rapids. October 27, 1914: Complaint made. November 2, 1914: Defendant entered a plea of guilty.

CASE NO. 1289.

PEOPLE VS. FELSPAUGH BROS.

Charge: Selling sausage containing excessive cereal.

In police court, city of Grand Rapids. October 27, 1914: Complaint made. Case pending.

CASE NO. 1290.

PEOPLE VS. JACOB VERCHOOR.

Charge: Selling sausage containing excessive cereal.

In police court, city of Grand Rapids. October 27, 1914: Complaint made. Case pending.

CASE NO. 1291.

PEOPLE VS. B. HADDIE.

Charge: Selling sausage containing cereal without stamping.
In justice court, city of Lake Odessa. October 29, 1914: Complaint made.
November 19, 1914: Examination held. January 26, 1915: Defendant acquitted.

CASE NO. 1292.

PEOPLE VS. E. M. DORINE.

Charge: Sale of adulterated milk.
In justice court, city of Lake Odessa. October 29, 1914: Complaint made.
November 20, 1914: Defendant entered a plea of guilty. Fined \$10 and costs.

CASE NO. 1293.

PEOPLE VS. FRANK H. MILKS.

Charge: Selling sausage containing excessive cereal.
In justice court, city of Grayling. November 10, 1914: Complaint made.
Bound over to circuit court for trial. January 12, 1915: Defendant acquitted.

CASE NO. 1294.

PEOPLE VS. CHAS. WILCOX.

Charge: Serving oleomargarine without displaying sign.
In justice court, city of Grayling. November 10, 1914: Complaint made.
Bound over to circuit court for trial. January 13, 1915: Defendant acquitted.

CASE NO. 1295.

PEOPLE VS. P. G. ERICKSON.

Charge: Selling cranberries short measure.
In justice court, city of Gladstone. November 11, 1914: Complaint made.
Defendant entered a plea of guilty. Fined \$20 and costs. Fine remitted on payment of costs.

CASE NO. 1296.

PEOPLE VS. ELOF. HANSEN.

Charge: Selling cranberries short measure.
In justice court, city of Gladstone. November 11, 1914: Complaint made.
Defendant entered a plea of guilty. Fined \$20 and costs. Fine remitted on payment of costs.

CASE NO. 1297.

PEOPLE VS. ALEX MARSHALL.

Charge: Selling cranberries short measure.
In justice court, city of Gladstone. November 11, 1914: Complaint made.
Defendant entered a plea of guilty. Fined \$20 and costs. Fine remitted on payment of costs.

CASE NO. 1298.

PEOPLE VS. FRANK NOA.

Charge: Using excessive cereal in the manufacture of sausage.
In justice court, city of Gaylord. November 11, 1914: Complaint made. Defendant waived examination and was bound over to circuit court for trial. Case pending.

STATE OF MICHIGAN.

CASE NO. 1299.

PEOPLE VS. WM. HEATON.

Charge: Sale of adulterated milk.

In recorder's court, city of Bad Axe. November 11, 1914: Complaint made.
Defendant entered a plea of guilty. Fined \$50.85.

CASE NO. 1300.

PEOPLE VS. MILE JAKOWCZYK.

Charge: Sale of adulterated milk.

In justice court, village of Millington. November 12, 1914: Complaint made.
November 13, 1914: Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1301.

PEOPLE VS. ALFRED BELL.

Charge: Sale of adulterated milk.

In justice court, village of Millington. November 12, 1914: Complaint made.
November 13, 1914: Defendant entered a plea of guilty. Fined \$40 and costs.

CASE NO. 1302.

PEOPLE VS. F. J. VAN PELDT.

Charge: Selling cranberries short measure.

In police court, city of Detroit. November 12, 1914: Complaint made. November 23, 1914: Defendant convicted. Fined \$25.

CASE NO. 1303.

PEOPLE VS. OLIVER HART.

Charge: Selling potatoes short weight.

In justice court, city of Manistique. November 14, 1914: Complaint made.
Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO. 1304.

PEOPLE VS. W. D. HICKBOTH.

Charge: Shipping unclean ice cream cans.

In recorder's court, city of Bad Axe. November 18, 1914: Complaint made.
Defendant entered a plea of guilty. Fined \$10.50.

CASE NO. 1305.

PEOPLE VS. WM. SHELHORN.

Charge: Sale of insanitary milk.

In justice court, city of Hastings. November 18, 1914: Complaint made.
November 20, 1914: Defendant entered a plea of guilty. Fined \$36.95 including costs.

CASE NO. 1306.

PEOPLE VS. ROY JAMES.

Charge: Sale of insanitary milk.

In justice court, city of Hastings. November 18, 1914: Complaint made. November 20, 1914: Defendant entered a plea of guilty. Fined \$34.95 including costs.

CASE NO. 1307.

PEOPLE VS. CHAS. MORAL.

Charge: Selling colored oleomargarine for butter.
In police court, city of Detroit. November 28, 1914: Complaint made. Case pending.

CASE NO. 1308.

PEOPLE VS. THOS. M. FAUST, PROP. WHITE FRONT.

Charge: Selling colored oleomargarine for butter.
In police court, city of Detroit. November 28, 1914: Complaint made. December 28, 1914: Examination held. Case pending.

CASE NO. 1309.

PEOPLE VS. C. L. PIXLEY.

Charge: Selling colored oleomargarine.
In police court, city of Detroit. November 28, 1914: Complaint made. December 29, 1914: Examination held. Case pending.

CASE NO. 1310.

PEOPLE VS. H. B. MILES.

Charge: Selling oleomargarine for butter.
In police court, city of Detroit. November 28, 1914: Complaint made. December 15, 1914: Examination held. Case pending.

CASE NO. 1311.

PEOPLE VS. FRANK ARENS.

Charge: Selling colored oleomargarine for butter.
In police court, city of Detroit. November 28, 1914: Complaint made. December 29, 1914: Examination held. Case pending.

CASE NO. 1312.

PEOPLE VS. W. H. GREEN.

Charge: Selling colored oleomargarine for butter.
In police court, city of Detroit. November 28, 1914: Complaint made. December 29, 1914: Examination held. Case pending.

CASE NO. 1313.

PEOPLE VS. FRED ROULO.

Charge: Selling oleomargarine artificially colored.
In police court, city of Detroit. November 28, 1914: Complaint made. December 29, 1914: Examination held. Case pending.

CASE NO. 1314.

PEOPLE VS. WM. LEWIS.

Charge: Selling oleomargarine artificially colored.
In police court, city of Detroit. November 28, 1914: Complaint made. Case pending.

STATE OF MICHIGAN.

CASE NO. 1315.

PEOPLE VS. ALEX. M. WRIGHT.

Charge: Selling oleomargarine artificially colored.
In police court, city of Detroit. November 28, 1914: Complaint made. December 29, 1914: Examination held. Case pending.

CASE NO. 1316.

PEOPLE VS. JOHN B. SALES.

Charge: Selling oleomargarine artificially colored.
In police court, city of Detroit. November 28, 1914: Complaint made. December 29, 1914: Examination held. Case pending.

CASE NO. 1317.

PEOPLE VS. DETROIT TEA & BUTTER CO., (HERMAN P. COHEN).

Charge: Selling renovated butter for dairy butter.
In police court, city of Detroit. November 28, 1914: Complaint made. December 29, 1914: Defendant bound over to recorder's court for trial. May 14, 1915: Defendant acquitted.

CASE NO. 1318.

PEOPLE VS. JOHN W. AGNEW.

Charge: Failure to stamp sausage containing cereal.
In justice court, city of Sault Ste. Marie. December 1, 1914: Complaint made. December 15, 1914: Examination held. Defendant dismissed on payment of costs.

CASE NO. 1319.

PEOPLE VS. FRANK CAMPANORA.

Charge: Selling process butter without stamping.
In justice court, city of Sault Ste. Marie. December 1, 1914: Complaint made. Defendant dismissed on payment of costs.

CASE NO. 1320.

PEOPLE VS. THEO. PAULANTIS.

Charge: Deceptive advertising.
In justice court, city of Sault Ste. Marie. December 1, 1914: Complaint made. Defendant dismissed on payment of costs.

CASE NO. 1321.

PEOPLE VS. H. A. WILLIAMS.

Charge: Using excessive cereal in the manufacture of sausage.
In justice court, city of Sault Ste. Marie. December 1, 1914: Complaint made. December 15, 1914: Case dismissed.

CASE NO. 1322.

PEOPLE VS. KOSTO VASIL.

Charge: Failure to stamp process butter.
In justice court, city of Sault Ste. Marie. December 1, 1914: Complaint made. December 5, 1914: Examination held. Defendant dismissed on payment of costs.

CASE NO. 1323.

PEOPLE VS. FRED BYE.

Charge: Using excessive cereal in sausage.
In justice court, city of Sault Ste. Marie. December 1, 1914: Complaint made.
December 15, 1914: Defendant dismissed on payment of costs.

CASE NO. 1324.

PEOPLE VS. ISEODOR SANDELMAN.

Charge: Selling lard compound without stamping.
In justice court, city of Sault Ste. Marie. December 1, 1914: Complaint made.
December 15, 1914: Examination held. Defendant dismissed on payment of costs.

CASE NO. 1325.

PEOPLE VS. DETROIT TERMINAL STORAGE CO.

In seisure proceedings directed against 3,500 gallons of canned pumpkin in storage in city of Detroit.

Charge: Product decomposed and unfit for food. Summons issued. Product destroyed.

CASE NO. 1326.

PEOPLE VS. A. J. ERWIN.

Charge: Selling camphor liniment not U. S. P.
In municipal court, city of Battle Creek. December 1, 1914: Complaint made.
December 14, 1914: Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1327.

PEOPLE VS. CHAS. BABICKY.

Charge: Selling cranberries short measure.
In justice court of Bessemer. December 2, 1914: Complaint made. December 3, 1914: Defendant entered a plea of guilty. Fined \$20 and costs. Fine remitted on payment of costs.

CASE NO. 1328.

PEOPLE VS. KULASAVICZ & SKWOR.

Charge: Selling cranberries short measure.
In justice court of Bessemer. December 2, 1914: Complaint made. December 3, 1914: Examination held. Defendant entered a plea of guilty. Fined \$20 and costs. Fine remitted on payment of costs.

CASE NO. 1329.

PEOPLE VS. WM. WATERS.

Charge: Selling cranberries short measure.
In justice court, of Bessemer. December 2, 1914: Complaint made. December 3, 1914: Examination held. Defendant entered a plea of guilty. Fined \$20 and costs. Fine remitted on payment of costs.

CASE NO. 1330.

PEOPLE VS. L. H. TRUETTNER.

Charge: Selling cranberries short measure.
In justice court, of Bessemer. December 2, 1914: Complaint made. December 3, 1914: Examination held. Defendant entered a plea of guilty. Fined \$20 and costs. Fine remitted on payment of costs.

STATE OF MICHIGAN.

CASE NO. 1331.

PEOPLE VS. ALFRED E. TRUMAN.

Charge: Selling sausage containing excessive cereal.

In justice court village of White Cloud. December 3, 1914: Complaint made.
December 4, 1914: Defendant bound over to circuit court for trial. Case pending.

CASE NO. 1332.

PEOPLE VS. THOMASMA BROS.

Charge: Selling sausage containing excessive cereal.

In justice court, village of White Cloud. December 3, 1914: Complaint made.
December 4, 1914: Defendant bound over to circuit court for trial. Defendant entered a plea of guilty. Fined \$100 and costs.

CASE NO. 1333.

PEOPLE VS. JAMES WEIGHTMAN.

Charge: Sale of rotten eggs.

In justice court of Three Rivers. December 3, 1914: Complaint made. December 11, 1914: Examination held. Defendant entered a plea of guilty. Fined \$17.90 costs.

CASE NO. 1334.

PEOPLE VS. V. D. LACEY.

Charge: Sale of insanitary milk.

In municipal court, city of Kalamazoo. December 3, 1914: Complaint made. December 5, 1914: Examination held. Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1335.

PEOPLE VS. NICK MONTSATSON.

Charge: Insanitary conditions.

In justice court, city of Sault Ste. Marie. December 3, 1914: Complaint made. Defendant dismissed on payment of costs.

CASE NO. 1336.

PEOPLE VS. CHRIST GRANAKURA.

Charge: Insanitary conditions.

In justice court, city of Sault Ste. Marie. December 3, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1337.

PEOPLE VS. GEO. K. BOOTH.

Charge: Insanitary conditions.

In justice court, city of Sault Ste. Marie. December 5, 1914: Complaint made. Defendant dismissed on payment of costs.

CASE NO. 1338.

PEOPLE VS. FRED E. LULL.

Charge: False representation in packing fruit.

In justice court of Paw Paw. December 7, 1914: Complaint made. December 18, 1914: Examination held. Defendant convicted. Fined \$10 and costs.

CASE NO. 1339.

PEOPLE VS. JOSEPH SOLOMON.

Charge: Selling adulterated linseed oil.

In justice court of Harrisville. December 10, 1914: Complaint made. December 23, 1914: Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1340.

PEOPLE VS. AUGUST KANNOWSKI.

Charge: Refusing to give or sell sample for analysis.

In justice court, city of Alpena. December 11, 1914: Complaint made. December 26, 1914: Examination held. January 15, 1915: Defendant entered a plea of guilty. Fined \$25.

CASE NO. 1341.

PEOPLE VS. JAMES NANOS.

Charge: Sale of adulterated milk.

In justice court, city of Sault Ste. Marie. December 16, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$10 and costs.

CASE NO. 1342.

PEOPLE VS. WM. ARMSTRONG.

Charge: Selling cranberries short measure.

In justice court, city of Sault Ste. Marie. December 17, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO. 1343.

PEOPLE VS. D. BOOTH (BOOTH & NEWTON).

Charge: Selling coated nuts (paradise).

In justice court, city of Sault Ste. Marie. December 17, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1344.

PEOPLE VS. SAMUEL C. SKIDMORE.

Charge: Selling oleomargarine without displaying sign.

In justice court, city of Sault Ste. Marie. December 17, 1914: Complaint made. December 18, 1914: Defendant bound over to circuit court for trial. Defendant entered a plea of guilty. Fine remitted on payment of costs.

CASE NO. 1345.

PEOPLE VS. JOSEPH D. MCQUEEN.

Charge: Selling potatoes short measure.

In justice court, city of Sault Ste. Marie. December 17, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO. 1346.

PEOPLE VS. FRANK CALLAGHAN.

Charge: Selling oleomargarine without displaying sign.

In justice court, city of Sault Ste. Marie. December 17, 1914: Complaint made. Defendant entered a plea of guilty. Fine remitted on payment of \$35 costs.

STATE OF MICHIGAN.

CASE NO. 1347.

PEOPLE VS. JOSEPH FUOCO.

Charge: Selling cranberries short measure.

In justice court, city of Sault Ste. Marie. December 17, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO 1348.

PEOPLE VS. JOSEPH FUOCO.

Charge: Selling oleomargarine without displaying sign.

In justice court, city of Sault Ste. Marie. December 17, 1914: Complaint made. Defendant entered a plea of guilty. Fine remitted on payment of \$35 costs.

CASE NO. 1349.

PEOPLE VS. FRED TROPASSO.

Charge: Selling potatoes short weight.

In justice court, city of Sault Ste. Marie. December 17, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO. 1350.

PEOPLE VS. LORENZO DE LUCIA.

Charge: Selling potatoes short weight.

In justice court, city of Sault Ste. Marie. December 17, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO. 1351.

PEOPLE VS. CENTRAL GROCERY CO., (RALPH RANGE).

Charge: Selling potatoes short weight.

In justice court, city of Sault Ste. Marie. December 17, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO. 1352.

PEOPLE VS. HENRY STERLING.

Charge: Selling cranberries short measure.

In justice court, city of Sault Ste. Marie. December 17, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO. 1353.

PEOPLE VS. FRANK FALCONE.

Charge: Selling potatoes short weight.

In justice court, city of Sault Ste. Marie. December 17, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO. 1354.

PEOPLE VS. JOHN A. STROMBERG.

Charge: Selling cranberries short measure.

In justice court, city of Escanaba. December 17, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO. 1355.

PEOPLE VS. E. A. ROSE (ROYAL GROCERY CO.).

Charge: Selling cranberries short measure.

In justice court, city of Escanaba. December 17, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs. Fine remitted on payment of costs.

CASE NO. 1356.

PEOPLE VS. E. A. ROSE (ROYAL GROCERY CO.).

Charge: Selling potatoes short weight.

In justice court, city of Escanaba. December 17, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO. 1357.

PEOPLE VS. SAM WINBURG.

Charge: Selling cloth short measure.

In justice court, city of Sault Ste. Marie. December 17, 1914: Complaint made. March 4, 1915: Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1358.

PEOPLE VS. C. LEFEBORE, JR.

Charge: Selling cranberries short measure.

In justice court, city of Escanaba. December 18, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO. 1359.

PEOPLE VS. CHARLES ROUSSAIN.

Charge: Impersonating an inspector.

In justice court, city of Sault Ste. Marie. December 18, 1914: Complaint made. Defendant entered a plea of guilty. Sentenced to 25 days in jail.

CASE NO. 1360.

PEOPLE VS. HERMAN SALINSKY (FAIR SAVING STORE).

Charge: Selling cranberries short measure.

In justice court, city of Escanaba. December 18, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO. 1361.

PEOPLE VS. PETER JUNGHER.

Charge: Having in possession decomposed meat with intent to sell.

In justice court, city of Escanaba. December 19, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO. 1362.

PEOPLE VS. E. L. BURDICK.

Charge: Using excessive cereal in manufacture of sausage.

In justice court, of East Jordan. December 29, 1914: Complaint made. Defendant entered a plea of guilty. Fined \$100.

STATE OF MICHIGAN.

CASE NO. 1363.

PEOPLE VS. WM. A. MCCOOL.

Charge: Transportation of cream in rusty and open seamed cans.
In justice court, city of Traverse City. December 30, 1914: Complaint made.
April 16, 1915: Defendant entered a plea of guilty. Fined \$10 and costs.

CASE NO. 1364.

PEOPLE VS. CLEM BREWER.

Charge: Using excessive cereal in manufacture of sausage.
In justice court, city of Ithaca. January 5, 1915: Complaint made. January 6, 1915: Defendant waived examination and was bound over to circuit court for trial. Case pending.

CASE NO. 1365.

PEOPLE VS. JOHN H. ROE.

Charge: Selling sausage containing cereal without stamping.
In justice court, city of Sault Ste. Marie. January 7, 1915: Complaint made. February 15, 1915: Examination held. May 13, 1915: Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1366.

PEOPLE VS. TOM THOMAS.

Charge: Selling lard compound without stamping.
In justice court, city of Sault Ste. Marie. January 7, 1915: Complaint made. Bound over to circuit court for trial. February 3, 1915: Defendant entered a plea of guilty. Sentence pending.

CASE NO. 1367.

PEOPLE VS. ACRE TROCRIDO.

Charge: Selling renovated butter without stamping.
In justice court, city of Sault Ste. Marie. January 7, 1915: Complaint made. Bound over to circuit court for trial. Defendant entered a plea of guilty. Sentence pending.

CASE NO. 1368.

PEOPLE VS. MILE BOZANICH.

Charge: Conducting an insanitary dairy.
In justice court, city of Calumet. January 9, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$5 and costs.

CASE NO. 1369.

PEOPLE VS. WALTER H. GRAY.

Charge: Sale of adulterated milk.
In justice court, city of Kalamazoo. January 9, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$50 and costs.

CASE NO. 1370.

PEOPLE VS. E. C. WHITENECK.

Charge: Sale of adulterated milk.
In justice court, city of Kalamazoo. January 9, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$15 and costs.

CASE NO. 1371.

PEOPLE VS. ESTEN PLATT.

Charge: Sale of adulterated milk.
In justice court, city of Kalamazoo. January 11, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$15 and costs.

CASE NO. 1372.

PEOPLE VS. MARTIN HENDRICKSON.

Charge: Selling cream below the legal standard.
In justice court, city of Escanaba. January 13, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs. Fine remitted.

CASE NO. 1373.

PEOPLE VS. CASPER RENDL.

Charge: Sale of adulterated milk.
In justice court, city of Iron Mountain. January 15, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$5 and costs.

CASE NO. 1374.

PEOPLE VS. MICHAEL MILLER.

Charge: Selling illegal veal.
In police court, city of Detroit. January 15, 1915: Complaint made. Case dismissed.

CASE NO. 1375.

PEOPLE VS. FRANK C. HOLMES & SON.

Charge: Selling food in package form without net weight stamped thereon.
In justice court, city of Alpena. January 15, 1915: Complaint made. Case pending.

CASE NO. 1376.

PEOPLE VS. WM. BURT.

Charge: Selling oleomargarine for butter.
In justice court, city of Iron Mountain. January 16, 1915: Complaint made. Bound over to circuit court for trial. Defendant entered a plea of guilty. Fined \$50 and costs.

CASE NO. 1377.

PEOPLE VS. W. H. SCANDLING.

Charge: Sale of cranberries short measure.
In justice court, city of Iron Mountain. January 18, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs. Fine remitted.

CASE NO. 1378.

PEOPLE VS. NELSON & CARLSON.

Charge: Selling cranberries short measure.
In justice court, city of Iron Mountain. January 18, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs. Fine remitted.

CASE NO. 1379.

PEOPLE VS. GUISEPPE NICOLATI.

Charge: Selling milk from insanitary dairy.
In justice court, city of Iron Mountain. January 19, 1915: Complaint made.
Defendant entered a plea of guilty. Fined \$5 and costs.

CASE NO. 1380.

PEOPLE VS. E. C. WILLIAMS.

Charge: Selling Tr. Iodine not U. S. P.
In justice court, city of Hillsdale. January 20, 1915: Complaint made. Defendant waived examination and was bound over to circuit court for trial. March 1, 1915: Defendant entered a plea of guilty. Fined \$25.

CASE NO. 1381.

PEOPLE VS. JOSEPH R. SKRZYCKI.

Charge: Having in possession illegal veal with intent to sell.
In police court, city of Detroit. January 25, 1915: Complaint made. February 10, 1915: Defendant acquitted.

CASE NO. 1382.

PEOPLE VS. FRANK PATRZUSKI.

Charge: Having in possession illegal veal with intent to sell.
In police court, city of Detroit. January 25, 1915: Complaint made. February 10, 1915: Defendant convicted. Fined \$25.

CASE NO. 1383.

PEOPLE VS. WALTER GALANTOWICZ.

Charge: Having in possession illegal veal with intent to sell.
In police court, city of Detroit. January 25, 1915: Complaint made. February 10, 1915: Defendant acquitted.

CASE NO. 1384.

PEOPLE VS. WM. WALTER.

Charge: Selling sausage containing excessive cereal.
In justice court of Ironwood. January 26, 1915: Complaint made. January 27, 1915: Examination held. Bound over to circuit court for trial. Defendant entered a plea of guilty. Fined \$100 and costs.

CASE NO. 1385.

PEOPLE VS. KIRK N. SHERWOOD.

Charge: Selling insanitary milk.
In municipal court, city of Kalamazoo. February 1, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$30 and costs.

CASE NO. 1386.

PEOPLE VS. ELI RAYCROFT.

Charge: Selling decomposed and rotten eggs.
In justice court of Ithaca. February 3, 1915: Complaint made. February 23, 1915: Examination held. Case pending.

CASE NO. 1387.

PEOPLE VS. CLARK A. BARBER.

Charge: Having in possession insanitary cream with intent to sell.
In justice court, city of Hastings. February 3, 1915: Complaint made. February 16, 1915: Defendant convicted. Fine \$25 and costs.

CASE NO. 1388.

PEOPLE VS. PETER ERICKSON.

Charge: Selling milk from insanitary dairy.
In justice court, city of Hancock. February 11, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$5 and costs.

CASE NO. 1389.

PEOPLE VS. ANNA STRUTZEL (VERTIN BROS. & CO.).

Charge: Selling potatoes short weight.
In justice court, city of Calumet. February 13, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs.

CASE NO. 1390.

PEOPLE VS. ALFRED ST. ARNOLD.

Charge: Selling sausage containing excessive cereal.
In justice court, city of Iron Mountain. February 24, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1391.

PEOPLE VS. J. PETTINGER.

Charge: Sale of insanitary milk.
In justice court, city of Bad Axe. February 24, 1915: Complaint made. Defendant entered a plea of guilty. Fined costs.

CASE NO. 1392.

PEOPLE VS. A. WATSON.

Charge: Sale of insanitary milk.
In justice court, city of Bad Axe. February 24, 1915: Complaint made. Defendant entered a plea of guilty. Fined costs.

CASE NO. 1393.

PEOPLE VS. A. O. BERSKI.

Charge: Sale of insanitary milk.
In justice court, city of Bad Axe. February 24, 1915: Complaint made. Defendant entered a plea of guilty. Fined costs.

CASE NO. 1394.

PEOPLE VS. WM. CARR.

Charge: Sale of insanitary milk.
In justice court, city of Bad Axe. February 24, 1915: Complaint made. Defendant entered a plea of guilty. Fined costs.

STATE OF MICHIGAN.

CASE NO. 1395.

PEOPLE VS. JOSEPH PABOLARI.

Charge: Selling sausage containing excessive cereal.

In justice court of Iron River. February 25, 1915: Complaint made. Bound over to circuit court for trial. June 14, 1915: Defendant entered a plea of guilty. Fined \$100 and costs.

CASE NO. 1396.

PEOPLE VS. RALPH E. WALDO.

Charge: Sale of insanitary cream.

In municipal court, city of Kalamazoo. March 17, 1915: Complaint made. March 22, 1915: Examination held. Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1397.

PEOPLE VS. SAYLES & CURTIS.

Charge: Sale of adulterated milk.

In justice court, city of Cheboygan. April 1, 1915: Complaint made. April 22, 1915: Defendant acquitted.

CASE NO. 1398.

PEOPLE VS. ROSE CITY CREAMERY (W. A. OOOK).

Charge: Insanitary conditions at creamery.

In justice court, city of West Branch. April 21, 1915: Complaint made. Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1399.

PEOPLE VS. GEO. E. MCKENZIE.

Charge: Selling sausage containing excessive cereal.

In justice court of Gaylord. April 2, 1915: Complaint made. Case pending.

CASE NO. 1400.

PEOPLE VS. ROBERT SHAFFER.

Charge: Selling infected confectionery.

In justice court, city of Petoskey. April 19, 1915: Complaint made. April 24, 1915: Examination held. Case pending.

CASE NO. 1401.

PEOPLE VS. C. B. DRESSLER.

Charge: Net weight violation in sale of lard.

In police court, city of Grand Rapids. April 18, 1915: Complaint made. Case dismissed.

CASE NO. 1402.

PEOPLE VS. JOHN FRICK.

Charge: Net weight violation.

In police court, city of Grand Rapids. April 18, 1915: Complaint made. Case dismissed.

CASE NO. 1403.

PEOPLE VS. CLAUDE M. RYAN.

Charge: Net weight violation.

In police court, city of Grand Rapids. April 18, 1915: Complaint made. Case dismissed.

CASE NO. 1404.

PEOPLE VS. THOS. M. DITMAR.

Charge: Net weight violation.

In police court, city of Grand Rapids. April 20, 1915: Complaint made. Case dismissed.

CASE NO. 1405.

PEOPLE VS. JOHN TRIMBLE.

Charge: Sale of adulterated milk.

In justice court, city of Ithaca. March 26, 1915: Complaint made. May 29, 1915: Defendant entered a plea of guilty. Fined \$7 costs.

CASE NO. 1406.

PEOPLE VS. MRS. H. RHYNARD.

Charge: Sale of adulterated milk.

In justice court, city of Ithaca. March 26, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$7 costs.

CASE NO. 1407.

PEOPLE VS. J. J. SMOKER.

Charge: Selling cream below standard.

In justice court, city of Ishpeming. May 4, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1408.

PEOPLE VS. JOHN P. MILLER.

Charge: Selling oleomargarine for butter.

In justice court, city of Ishpeming. May 4, 1915: Complaint made. Bound over to circuit court for trial. May 27, 1915: Defendant entered a plea of guilty. Fined \$50 and costs.

CASE NO. 1409.

PEOPLE VS. STEVE MELKA.

Charge: Selling sausage containing excessive cereal.

In justice court, city of Ishpeming. May 4, 1915: Complaint made. Bound over to circuit court for trial. May 27, 1915: Defendant convicted. Fined \$100 and costs.

CASE NO. 1410.

PEOPLE VS. FRED HELD.

Charge: Selling sausage containing cereal not stamped.

In justice court, city of Ishpeming. May 4, 1915: Complaint made. Bound over to circuit court for trial. May 24, 1915: Defendant entered a plea of guilty. Fined \$100 and costs.

STATE OF MICHIGAN.

CASE NO. 1411.

PEOPLE VS. AUGUST DUX.

Charge: Sale of adulterated milk.

In recorder's court, city of Saginaw. May 6, 1915: Complaint made. May 10, 1915: Examination held. Defendant entered a plea of guilty. Fined \$10 and costs.

CASE NO. 1412.

PEOPLE VS. CHAS. HOLT.

Charge: Violation of weights and measures law.

In police court, city of Kalamazoo. May 12, 1915: Complaint made. Case pending.

CASE NO. 1413.

PEOPLE VS. FRANK MC CALL.

Charge: Violation of weights and measures law.

In police court, city of Kalamazoo. May 20, 1915: Complaint made. May 21, 1915: Examination held. June 10, 1915: Defendant acquitted.

CASE NO. 1414.

PEOPLE VS. B. H. BREWSTER (AGENT NOBLE REFINING CO., CLEVELAND).

Charge: Adulterated linseed oil.

In justice court, city of Traverse City. May 24, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$50 and costs.

CASE NO. 1415.

PEOPLE VS. ALEX. VELLAMAN.

Charge: Deceptive advertising.

In police court, city of Kalamazoo. May 24, 1915: Complaint made. June 2, 1915: Examination held. Case pending.

CASE NO. 1416.

PEOPLE VS. J. W. ARMSTRONG (AGENT R. A. JOHNSTON & CO., MILWAUKEE).

Charge: Net weight violation.

In justice court, city of Traverse City. May 29, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1417.

PEOPLE VS. SYLVESTER ARNTZ.

Charge: Sale of adulterated milk.

In justice court, of Carson City. June 2, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1418.

PEOPLE VS. MRS. C. GREENHOE.

Charge: Sale of adulterated milk.

In justice court of Carson City. June 2, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1419.

PEOPLE VS. CHAS. SNYDER.

Charge: Sale of adulterated milk.
In justice court, of Carson City. June 2, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1420.

PEOPLE VS. FRANK HOTTINGER.

Charge: Sale of adulterated milk.
In justice court of Carson City. June 2, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1421.

PEOPLE VS. JOHN TOW.

Charge: Sale of adulterated milk.
In justice court, of Carson City. June 2, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1422.

PEOPLE VS. LEW MONROE.

Charge: Sale of adulterated milk.
In justice court of Carson City. June 2, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1423.

PEOPLE VS. GUS LORR.

Charge: Selling potatoes short weight.
In justice court, city of Ann Arbor. June 7, 1915: Complaint made. Defendant entered a plea of guilty. Sentence suspended on payment of costs.

CASE NO. 1424.

PEOPLE VS. H. O. SMITH.

Charge: Sale of illegal scale.
In justice court, city of St. Joseph. June 8, 1915: Complaint made. Case pending.

CASE NO. 1425.

PEOPLE VS. FRANK BINISKI.

Charge: Conducting an insanitary meat market.
In justice court, city of Calumet. June 11, 1915: Complaint made. Case pending.

CASE NO. 1426.

PEOPLE VS. E. R. HIXSON.

Charge: Selling canned peas containing copper sulphate.
In justice court, city of Houghton. June 12, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

STATE OF MICHIGAN.

CASE NO. 1427.

PEOPLE VS. ALBERT PHILLIPS.

Charge: Sale of unwholesome meat.

In recorder's court, city of Detroit. June 18, 1915: Complaint made. Case pending.

CASE NO. 1428.

PEOPLE VS. CHAS. MORTENSON.

Charge: Selling renovated butter without stamping.

In justice court, city of Menominee. June 21, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs. Fine remitted on payment of costs.

CASE NO. 1429.

PEOPLE VS. LOUIS MENACHER.

Charge: Selling renovated butter without stamping.

In justice court, city of Menominee. June 21, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs. Fine remitted on payment of costs.

CASE NO. 1430.

PEOPLE VS. M. JANOWITZ.

Charge: Selling lard compound without stamping.

In justice court, city of Menominee. June 21, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs. Fine remitted on payment of costs.

CASE NO. 1431.

PEOPLE VS. TOM ROBERT.

Charge: Selling lard compound without stamping.

In justice court, city of Menominee. June 21, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs. Fine remitted on payment of costs.

CASE NO. 1432.

PEOPLE VS. DICK BANYON.

Charge: Selling Hamburg containing sulphites.

In justice court, city of Benton Harbor. June 22, 1915: Complaint made. Case pending.

CASE NO. 1433.

PEOPLE VS. H. H. WOODWARD.

Charge: Selling Hamburg containing sulphites.

In police court, city of Port Huron. June 23, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$5 and costs.

CASE NO. 1434.

PEOPLE VS. A. TONKOVICH.

Charge: Sale of adulterated milk.

In justice court, of Standish. June 23, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$15 and costs.

CASE NO. 1435.

PEOPLE VS. FRED SCHMIDTZ.

Charge: Sale of adulterated milk.
In justice court of Standish. June 23, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$15 and costs.

CASE NO. 1436.

PEOPLE VS. ELMER GREANYA.

Charge: Sale of adulterated milk.
In justice court of Standish. June 23, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$15 and costs.

CASE NO. 1437.

PEOPLE VS. WILL NEHLS.

Charge: Sale of adulterated milk.
In justice court of Standish. June 23, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$15 and costs.

CASE NO. 1438.

PEOPLE VS. JOHN BRAZON.

Charge: Sale of adulterated milk.
In justice court of Standish. June 23, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$15 and costs.

CASE NO. 1439.

PEOPLE VS. THOS. WYATT.

Charge: Sale of adulterated milk.
In justice court of Standish. June 23, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$15 and costs.

CASE NO. 1440.

PEOPLE VS. C. GRANDMASON.

Charge: Sale of adulterated milk.
In justice court of Standish. June 23, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$15 and costs.

CASE NO. 1441.

PEOPLE VS. JAMES GRIER.

Charge: Sale of adulterated milk.
In justice court of Standish. June 24, 1915: Complaint made. Defendant entered a plea of not guilty. Case pending.

CASE NO. 1442.

PEOPLE VS. STRAUB BROS. & AMIOTTE.

Charge: Violation of net weight law.
In justice court, city of Traverse City. June 24, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

STATE OF MICHIGAN.

CASE NO. 1443.

PEOPLE VS. HERBON & SON.

Charge: Sale of adulterated linseed oil.

In justice court, city of Charlevoix. June 26, 1915: Complaint made. Case pending.

CASE NO. 1444.

PEOPLE VS. W. A. SACK.

Charge: Sale of adulterated lard.

In justice court, city of Charlevoix. June 22, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1445.

PEOPLE VS. W. A. SACK.

Charge: Selling sausage containing cereal without stamping.

In justice court, city of Charlevoix. June 22, 1915: Complaint made. June 26, 1915: Defendant entered a plea of guilty. Fined \$100 and costs. Fine remitted.

CASE NO. 1446.

PEOPLE VS. BARNEY SCHUDE (HARPER & THOMAS).

Charge: Selling ice cream below legal standard.

In justice court, city of Calumet. June 26, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

CASE NO. 1447.

PEOPLE VS. ROBERT PROULX.

Charge: Deceptive advertising.

In police court, city of Bay City. June 29, 1915: Complaint made. Defendant entered a plea of guilty. Fined \$25.

FINANCIAL STATEMENT

FINANCIAL STATEMENT.

From July 1, 1914, to June 30, 1915.

Funds available July 1, 1914.....	\$35,000 00
Fees collected for registration of creameries, cheese factories, cream stations, etc.	7,080 00
Fees collected for concentrated feeding stuffs	5,065 00
Fees collected for milk dealers' licenses	1,652 00
Fees collected for ice cream manufacturers' licenses	1,640 00
Fees collected for commission merchants' licenses	1,000 00
Miscellaneous	107 76
	\$51,544 76

DISBURSEMENTS.

James W. Helme, Commissioner, salary	\$2,000 00
Burr B. Lincoln, Dept. Commissioner, salary	1,500 00
F. L. Shannon, State Analyst, salary.....	2,000 00
L. H. Van Wormer, Assistant Chemist, salary	1,200 00
M. J. Smith, Chief Clerk, salary	1,587 52
Ida M. Harris, Clerk, salary	1,087 42
Gertrude Valliere, Clerk, salary	429 12
Gladys Dame, Clerk, salary	940 00
Pauline Phillips, Clerk, salary	591 71
E. H. Shuler, Clerk, salary	180 00
W. C. Geagley, Clerk, salary	1,087 42
Nan Childs, Clerk, salary	1,100 00
Iva Shuler, Clerk, salary	595 06
Lillian Pomeroy, Clerk, salary	513 42
Ruth Hoare, Clerk, salary	38 33
C. V. Jones, Regular Inspector, salary	1,000 00
John T. Rowe, Regular Inspector, salary	1,000 00
Wm. J. Mickel, Regular Inspector, salary	1,000 00
R. E. Woodruff, Regular Inspector, salary	1,000 00
C. R. Webb, Regular Inspector, salary	1,000 00
Wm. T. Hulscher, Regular Inspector, salary	597 21
James E. Helber, Regular Inspector, salary	845 07
Eugene P. Berry, Regular Inspector, salary	500 00
D. J. Farrell, Special Inspector, salary	411 00
A. H. Raike, Special Inspector, salary	159 00
H. D. Wendt, Special Inspector, salary	939 00
J. P. Fetz, Special Inspector, salary	939 00
Robt. J. Doherty, Special Inspector, salary	105 00
J. L. Lighthill, Special Inspector, salary	105 00
Myra C. Wheelan, Special Inspector, salary	819 00
Dennis Murphy, Special Inspector, salary	159 00
F. M. Dillon, Special Inspector, salary	657 00
Geo. H. Lannen, Special Inspector, salary	657 00
Thos. J. Kelly, Special Inspector, salary	222 00
W. L. Scovill, Special Inspector, salary	193 82
Postage	1,844 64
Chemicals, laboratory supplies, etc.	866 05
General expenses (see statement following)	13,254 44
By balance	8,421 53
	\$51,544 76

STATE OF MICHIGAN.

GENERAL EXPENSES INCLUDE.

James W. Helme, expenses	\$548 71
Burr B. Lincoln, expenses	496 77
F. L. Shannon, expenses	376 93
L. H. Van Wormer, expenses	174 77
E. H. Shuler, expenses	31 24
W. C. Geagley, expenses	210 19
Nan Childs, expenses	7 57
W. L. Scovill, expenses	27 15
C. V. Jones, expenses	901 24
John T. Rowe, expenses	859 07
Wm. T. Hulscher, expenses	494 40
James E. Helber, expenses	733 42
Wm. J. Mickel, expenses	837 51
R. E. Woodruff, expenses	741 61
Chas. R. Webb, expenses	1,055 27
D. J. Farrell, expenses	387 81
A. H. Raike, expenses	38 73
H. D. Wendt, expenses	839 73
John P. Fetz, expenses	1,116 37
R. J. Doherty, expenses	24 22
J. L. Lighthill, expenses	23 60
Myra C. Wheelan, expenses	192 04
Dennis Murphy, expenses	52 04
F. M. Dillon, expenses	221 99
Geo. H. Lannen, expenses	243 22
Eugene P. Berry, expenses	145 31
Thos. J. Kelly, expenses	189 06
Express	163 11
Messages (telephone and telegraph)	285 91
Weights and measures	605 66
Miscellaneous	1,229 79
	\$13,254 44

DRUG INSPECTION.

From July 1, 1914, to June 30, 1915.

Funds available July 1, 1914	\$6,000 00
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DISBURSEMENTS.

A. R. Todd, Drug Analyst, salary	\$1,500 00
M. A. Jones, Inspector, salary	1,000 00
Chas. A. Bugbee, Inspector, salary	1,000 00
A. R. Todd, expenses	277 94
M. A. Jones, expenses	717 13
Chas. A. Bugbee, expenses	950 37
By balance	554 56
	\$6,000 00

SUGAR BEET INSPECTION.

Elmer O. Ellsworth, salary and expenses	\$409 75
James E. Helber, salary and expenses	430 59
General expense	2 03
	\$842 37

LAWS AND DECISIONS

LAWS OF MICHIGAN.

RELATIVE TO

INSPECTION AND ADULTERATION OF FOODS AND DRUGS.

POWERS AND DUTIES OF THE COMMISSIONER.

AN ACT to provide for the appointment of a Dairy and Food Commissioner, and to define his powers and duties and fix his compensation.

(Act No. 211, Public Acts, 1893.)

The People of the State of Michigan enact:

1. (C. L., 4973) SECTION 1. That within thirty days after this act shall take effect, the Governor by and with the consent of the Senate, shall appoint a suitable person to be Dairy and Food Commissioner, which office is hereby created, and which commissioner so appointed shall hold his office until the first day of January, one thousand eight hundred and ninety-five and until his successor is appointed and qualified. At the next regular session of the legislature and every two years thereafter, the Governor, by and with the advice and consent of the Senate, shall appoint a Dairy and Food Commissioner, who shall hold his office for the term of two years from the first day of January in the year of his appointment and until his successor is appointed and qualified.

2. (C. L., 4974) SEC. 2. The governor shall have power to remove such commissioner at any time in his discretion; but the reasons for such removal shall be laid before the Senate at the next regular or special session of the legislature thereafter, and in case of a vacancy in the office of commissioner from any cause, the Governor may appoint another person to fill the same.

3. (C. L., 4975) SEC. 3. Before entering upon the duties of his office, the person so appointed shall make, subscribe, and file in the office of the Secretary of State, an oath of office in the form prescribed by section one of article eighteen of the constitution of this State, and shall enter into bonds with the people of the State of Michigan in the sum of ten thousand dollars, with sureties to be approved by the Governor, conditioned for the faithful performance of his duties.

4. (C. L., 4976) SEC. 4. Said commissioner shall receive an annual salary of two thousand dollars. The said commissioner is hereby authorized and empowered, by and with the advice and consent of the governor, to appoint a deputy commissioner. The salary of the deputy

commissioner shall be fifteen hundred dollars per annum. The said commissioner may also appoint eight regular inspectors, who shall receive an annual salary not to exceed one thousand dollars per year, and such other special inspectors as the proper performance of the duties of the office may require, which special inspectors shall be paid not to exceed three dollars per day for the time actually employed: Provided, That the whole sum paid to such special inspectors shall not exceed the income to said department derived from registration fees provided by law. The persons so appointed shall have power to administer oaths in all matters relative to the dairy and food laws and shall take and subscribe the constitutional oath of office and file the same in the office of the secretary of state; and they shall hold office during the pleasure of the commissioner. The inspectors shall have the same right of access to the places to be inspected as the said commissioner or his deputy. The commissioner shall appoint such clerks as he may deem necessary for the transaction of the business of his office. The salaries and expenses authorized by this section shall be for the unexpired part of the fiscal year ending June thirty, nineteen hundred five, and each fiscal year thereafter. Said salaries are to be paid monthly on the warrant of the auditor general. The actual and necessary expenses of the commissioner, deputy and inspectors, in the performance of their official duties, shall be audited by the state board of auditors and paid upon the warrant of the auditor general. Such compensation and expenses shall be certified, audited and paid in the same manner as salaries and expenses paid similar officers. The deputy commissioner and regular inspectors shall enter into bonds with the people of the state of Michigan in the sum of one thousand dollars each, with sureties to be approved by the commissioner, conditioned for the faithful performance of their respective duties. The board of state auditors shall provide office room, and the necessary furniture and fixtures and the necessary stationery, supplies and printing for the conducting of the business of said commissioner, on his application to said board therefor. Said office shall be and remain in the city of Lansing.

[Am. by Act No. 245, P. A. 1895. Am. by Act No. 154, P. A. 1897. Am. by Act No. 186, P. A. 1901. Am. by Act No. 230, P. A. 1903. Am. by Act No. 12, P. A. 1905. Am. by Act No. 18, P. A. 1913.]

5. (C. L., 4977) SEC. 5. The commissioner, by and with the consent of the Governor, shall appoint a suitable and competent person as State Analyst, who shall be a practical analytical chemist. The commissioner, in like manner, may appoint an assistant chemist. Before entering upon the duties of their offices, the analyst and assistant chemist shall take, subscribe and file in the office of the Secretary of State the constitutional oath of office. Their term of office shall continue during the pleasure of the commissioner. The Board of State Auditors shall provide a room in connection with the Dairy and Food Commissioner for the laboratory of the State Analyst and his assistant, and the necessary furniture and fixtures therefor. In case of the absence or inability of the State analyst or his assistant to perform his duty, the commissioner may appoint some competent person to perform the same tem-

porarily, which person shall take, subscribe and file the constitutional oath of office. The salaries and expenses authorized by this section shall be for the unexpired part of the fiscal year ending June thirty, nineteen hundred five, and each fiscal year thereafter, said salaries to be payable monthly on the warrant of the Auditor General. The salary of the chemist shall be not to exceed two thousand dollars; the salary of the assistant chemist shall be not to exceed twelve hundred dollars. The actual and necessary expenses of the chemist and the assistant chemist, in the performance of their official duties, shall be audited by the Board of State Auditors, and paid upon the warrant of the Auditor General. Such an amount as is found to be necessary in the proper performance of the work of the analyst may be expended for chemical supplies. Such compensations, expenses and supplies shall be certified, audited and paid in the same manner as the salaries, expenses and supplies of similar officers.

[Am. by Act No. 245, P. A. 1895. Am. by Act No. 154, P. A. 1897. Am. by Act No. 186, P. A. 1901. Am. by Act No. 230, P. A. 1903. Am. by Act No. 12, P. A. 1905.]

6. (C. L., 4978) SEC. 6. It shall be the duty of the Dairy and Food Commissioner to carefully inquire into the dairy and food and drink products and the several articles which are foods or drinks, or the necessary constituents of foods or drink, which are manufactured or sold or exposed or offered for sale in this State, and he may, in a lawful manner, procure samples of the same and direct the State Analyst to make due and careful examination of the same, and report to the commissioner the result of the analysis of all and any of such food and drink products or dairy products as are adulterated, impure or unwholesome in contravention of the laws of this State; and it shall be the duty of the commissioner to make a complaint against the manufacturer or vendor thereof in the proper county and furnish all evidence thereof, to obtain a conviction of the offense charged. The Dairy and Food Commissioner, or his deputy, or any person appointed by him for that purpose may make complaint and cause proceedings to be commenced against any person for the enforcement of any of the laws relative to adulterated, impure or unwholesome food or drink, and in such case he shall not be obliged to furnish security for costs and shall have power, in the performance of his duties, to enter into any creamery, factory, store, salesroom, drug store, or laboratory, or place where he has reason to believe food or drink is made, stored, sold or offered for sale and open any cask, tub, jar, bottle or package containing, or supposed to contain, any article of food or drink and examine or cause to be examined the contents thereof, and take therefrom samples for analysis. The person making such inspection shall take such sample of such article or product in the presence of at least one witness, and he shall in the presence of said witness, mark or seal such sample and shall tender at the time of taking to the manufacturer or vendor of such product, or to the person having the custody of the same, the value thereof, and a statement in writing for the taking of such sample. Whenever it is determined by the Dairy and Food Commissioner, his deputy or inspectors, that filthy, or unsanitary con-

ditions exist or are permitted to exist in the operation of any bakery, confectionery, or ice cream plant, or in any place where any food or drink products are manufactured, stored, deposited or sold for any purpose whatever, the proprietor or proprietors, owner or owners, of such bakery, confectionery or ice cream plant, or any person or persons, owning or operating any plant where any food or drink products are manufactured, stored, deposited or sold, shall be first notified and warned by the commissioner, his deputy or inspectors to place such bakery, confectionery or ice cream plant, or any place where any food or drink products are manufactured, stored, deposited or sold in a sanitary condition within a reasonable length of time; and any person or persons owning and operating any bakery, confectionery or ice cream plant or any place where any food or drink products are manufactured, stored, deposited or sold, failing to obey such notice and warning, shall be guilty of a misdemeanor, and upon conviction thereof, shall be punished by a fine of not less than twenty-five dollars nor more than three hundred dollars and costs of prosecution, or imprisonment in the county jail not to exceed ninety days, or until such fine and costs are paid, or both fine and imprisonment at the discretion of the court.

[Am. by Act No. 245, P. A. 1895. Am. by Act No. 154, P. A. 1897. Am. by Act No. 268, P. A. 1899. Am. by Act No. 12, P. A. 1905.]

7. (C. L., 4979). SEC. 7. The commissioner, his deputy or any person by said commissioner duly appointed for that purpose, is authorized at all times to seize and take possession of any and all food and dairy products, substitutes therefor, or imitation thereof kept for sale, exposed for sale or held in possession or under the control of any person which in the opinion of the said commissioner or his deputy or such person by him duly appointed, shall be contrary to the provisions of this act or other laws which now exist or which may be hereafter enacted.

First, The person so making such seizure as aforesaid, shall take from such goods as seized a sample for the purpose of analysis and shall cause the remainder thereof to be boxed and sealed and shall leave the same in the possession of the person from whom they were seized, subject to such disposition as shall hereafter be made thereof according to the provisions of this act.

Second, The person so making such seizure, shall forward the sample so taken to the State Analyst for analysis, who shall make an analysis of the same and shall certify the results of such analysis, which certificates shall be prima facie evidence of the fact or facts therein certified to in any court where the same may be offered in evidence.

Third, If upon such analysis it shall appear that said food or dairy products are adulterated, substitutes or imitations within the meaning of this act, said commissioner, or his deputy or any person by him duly authorized may make complaint before any justice of the peace or police justice having jurisdiction in the city, village or township where such goods were seized, and thereupon said justice of the peace shall issue his summons to the person from whom said goods were seized, directing him to appear not less than six nor more than

twelve days from the date of the issuing of said summons and show cause why said goods should not be condemned and disposed of. If the said person from whom said goods were seized cannot be found said summons shall be served upon the person then in possession of the goods. The said summons shall be served at least six days before the time of appearance mentioned therein. If the person from whom said goods were seized cannot be found, and no one can be found in possession of said goods, and the defendants shall not appear on the return day, then said justice of the peace shall proceed in said cause in the same manner provided by law where a writ of attachment is returned not personally served upon any of the defendants and none of the defendants shall appear upon the return day.

Fourth, Unless cause to the contrary thereof is shown, or if said goods shall be found upon trial to be in violation of any of the provisions of this act or other laws which now exist or which may be hereafter enacted, it shall be the duty of said justice of the peace or police justice to render judgment that said seized property be forfeited to the State of Michigan, and that the said goods be destroyed or sold by the said commissioner for any purpose other than to be used for food. The mode of procedure before said justice shall be the same, as near as may be as in civil proceedings before justices of the peace. Either parties may appeal to the circuit court as appeals are taken from justices' courts, but it shall not be necessary for the people to give any appeal bond.

Fifth, The proceeds arising from any such sale shall be paid into the State treasury and credited to the general fund: Provided, That if the owner or party claiming the property or goods so declared forfeited can produce and prove a written guarantee of purity, signed by the wholesaler, jobber, manufacturer or other party from whom said articles were purchased, then the proceeds of the sale of such articles, over and above the cost of seizure, forfeiture, and sale, shall be paid over to such owner or claimant to reimburse him, to the extent of such surplus, for his actual loss resulting from such seizure and forfeiture, as shown by the invoice.

Sixth, It shall be the duty of each prosecuting attorney when called upon by said commissioners or by any person by him authorized as aforesaid, to render any legal assistance in his power in proceedings under the provisions of this act, or any subsequent act relative to the adulteration of food, for the sale of impure or unwholesome food or food products.

[Am. by Act No. 245, P. A. 1895. Am. by Act No. 268, P. A. 1899. Am. by Act No. 230, P. A. 1903.]

8. (C. L., 4980) SEC. 8. It shall be unlawful for the State Analyst, while he holds his office to furnish to any individual, firm or corporation, any certificate as to the purity or excellence of any article manufactured or sold by them to be used as food or in the preparation of food.

9. (C. L., 4981) SEC. 9. The commissioner shall make an annual report to the Governor on or before the first day of July in each year,

and which shall be printed and published on or before the first day of September next thereafter, which report shall cover the doings of his office for the preceding fiscal year, which shall show, among other things, the number of manufactories and other places inspected and by whom, the number of specimens of food articles analyzed, and the State Analyst's report upon each one; the number of complaints entered against persons for violation of the laws relative to the adulteration of food, the number of convictions had, and the amount of fines imposed therefor, together with such recommendations relative to the statutes in force as his experience may justify. The commissioner shall also prepare, print and distribute to all the papers of the State, and to such persons as may be interested or may apply therefor, a monthly bulletin, in suitable paper covers, containing results of inspections, the results of analyses made by the State Analyst, with popular explanation of the same, and such other information as may come to him in his official capacity relating to the adulteration of food and drink products and of dairy products, so far as he may deem the same of benefit and advantage to the public; also a brief summary of all the work done during the month by the commissioner and his assistants in the enforcement of the laws of the State, but not more than ten thousand copies of each such monthly bulletin shall be printed.

[Am. by Act No. 245, P. A. 1895. Am. by Act No. 154, P. A. 1897. Am. by Act No. 268, P. A. 1899.]

10. (C. L., 4982) SEC. 10. Any person who shall wilfully hinder or obstruct the Dairy and Food Commissioner, or his deputy or other person or inspector by him duly authorized, in the exercise of the powers conferred upon him by this act, shall be deemed guilty of a misdemeanor, and on conviction shall be punished by a fine of not less than ten dollars nor more than one hundred dollars, or by imprisonment in the county jail for not less than ten days nor more than ninety days, or both such fine and imprisonment in the discretion of the court.

[Added by Act No. 245, P. A. 1895.]

11. (C. L., 4983) SEC. 11. The sum of thirty-five thousand dollars is hereby appropriated for the fiscal year ending June 30, nineteen hundred six, and for each fiscal year thereafter, there is hereby appropriated the sum of thirty-five thousand dollars. Out of the amounts appropriated by this act shall be paid all salaries and expenses and chemical supplies provided for therein: Provided, That all expenses for stationery and printing shall be audited and paid in the same manner as other State printing and stationery.

[Added by Act No. 245, P. A. 1895. Am. by Act No. 154, P. A. 1897. Am. by Act No. 268, P. A. 1899. Am. by Act No. 186, P. A. 1901. Am. by Act No. 12, P. A. 1905.]

12. (C. L., 4984) SEC. 12. The Auditor General is hereby directed to annually add to and incorporate into the State tax, to be levied each year, the sum of thirty-five thousand dollars, which, when collected,

shall be credited to the general fund to reimburse the same for the money appropriated by this act.

[Added by Act No. 245, P. A. 1895. Am. by Act No. 154, P. A. 1897. Am. by Act No. 268, P. A. 1899. Am. by Act No. 186, P. A. 1901. Am. by Act No. 230, P. A. 1903. Am. by Act No. 12, P. A. 1905.]

13. SEC. 13. It shall also be the duty of the Dairy and Food Commissioner to foster and encourage the dairy industry of the State, and, for that purpose, he shall investigate the general conditions of the creameries, cheese factories, condensed milk factories, skimming stations, milk stations and farm dairies in this State, with full power to enter upon any premises for such investigation, with the object in view of improving the quality and creating and maintaining uniformity of the dairy products of the State; and should it become necessary, in the judgment of the Dairy and Food Commissioner, he may cause instruction to be given in any creamery, cheese factory, condensed milk factory, skimming station, milk station or farm dairy, or in any locality in this State, and in order to secure the proper feeding and care of cows, or the practical operation of any plant producing dairy products, and in order to secure such a uniform and standard quality of dairy products in this State, he shall furnish a sufficient number of competent inspectors, the appointment of whom is provided for in section four of this act, and they shall be duly qualified to act as such inspectors.

[Added by Act No. 12, P. A. 1905.]

14. SEC. 14. Whenever it is determined by the Dairy and Food Commissioner, his deputy or inspectors, that any person is using, selling or furnishing to any skimming station, creamery, cheese factory, condensed milk factory, milk depot, farm dairy, milk dealer, the retail trade or to any consumer of milk, any impure or unwholesome milk or cream, which impurity or unwholesomeness is caused by the unsanitary or filthy condition of the premises where cows are kept, or by the unsanitary or filthy care or handling of the cows, or from the use of unclean utensils, or from unwholesome food, or from any other cause, the person so using, selling or furnishing to any skimming station, creamery, cheese factory, condensed milk factory, milk depot, farm dairy, milk dealer, the retail trade, or to any consumer of milk, any such milk or cream, shall first be notified and warned by the commissioner, his deputy or inspectors not to use, sell, or furnish such milk or cream to such skimming station, creamery, cheese factory, condensed milk factory, milk depot, farm dairy, milk dealer, the retail trade, or to any consumer of milk, and any person failing to obey such notice and warning and continuing to use, sell or furnish to any skimming station, creamery, cheese factory, condensed milk factory, farm dairy, milk dealer or to the retail trade such impure or unwholesome milk or cream, shall be guilty of a misdemeanor, and, upon conviction thereof, shall be punished by a fine not less than ten dollars, nor more than fifty dollars, and costs of prosecution, or imprisonment in the county jail, not to exceed ninety days, or until such fine and costs are paid, or both fine and imprisonment at the discretion of the court.

[Added by Act No. 12, P. A. 1905.]

15. SEC. 15. Whenever it is determined by the Dairy and Food Commissioner, his deputy or inspectors, that unsanitary conditions exist or are permitted to exist in the operation of any skimming station, creamery, cheese factory, condensed milk factory, milk depot or farm dairy, the proprietor or proprietors, or manager of said skimming station, creamery, cheese factory, condensed milk factory or farm dairy, shall be first notified and warned by the commissioner, his deputy or inspectors to place such skimming station, creamery, cheese factory, condensed milk factory, milk depot or farm dairy in a sanitary condition, within a reasonable length of time; and any person or persons owning or operating such skimming station, creamery, cheese factory, condensed milk factory, milk depot or farm dairy, failing to obey such notice and warning, shall be guilty of a misdemeanor, and upon conviction thereof, shall be punished by a fine of not less than twenty-five dollars, nor more than three hundred dollars, and costs of prosecution, or imprisonment in the county jail, not to exceed ninety days or until such fine and costs are paid, or both fine and imprisonment at the discretion of the court.

[Added by Act No. 12, P. A. 1905.]

16. SEC. 16. It shall be the duty of the proprietor or proprietors, (manager or managers), of every skimming station, creamery, cheese factory, condensed milk factory or milk or cream depot in the State where milk or cream is received by purchase or otherwise from three or more persons within thirty days after the commencement of the operation of said cheese factory, condensed milk factory or milk or cream depot and annually on the first day of April thereafter to register with the Dairy and Food Commissioner upon blanks furnished by said official, the location of such skimming station, creamery, cheese factory, condensed milk factory or milk or cream depot, and the name of its owner or owners and manager. And it shall be the duty of the proprietor or proprietors or manager of every skimming station, creamery, cheese factory, condensed milk factory or milk or cream depot in this State, where milk or cream is received by purchase or otherwise from three or more persons, to file a report with the Dairy and Food Commissioner, said report to be made on or before April first of each year, upon blanks furnished by said official, and to show the amount of milk or cream received by said skimming station, creamery, cheese factory, condensed milk factory or milk or cream depot during the year ending December 31 preceding; and said report shall show the amount of butter, cheese or condensed milk manufactured during the year, together with a list of the names and postoffice addresses of the patrons of said skimming station, creamery, cheese factory, condensed milk factory or milk or cream depot. Every skimming station, creamery, cheese factory, condensed milk factory or milk or cream depot, so registering and so reporting, shall pay to the office of the State Dairy and Food Commissioner an annual registration fee of five dollars, to be paid at the time of such registration. Whoever violates any of the provisions of this section, shall be deemed guilty of a misdemeanor, and for each and every offense shall be punished by a fine of not less than fifty dollars

nor more than one hundred dollars and the costs of prosecution, or by imprisonment in the county jail for not more than thirty days or both. The money so collected by the Dairy and Food Commission shall be paid into the State Treasury and be used to help defray the expenses of the office of the Dairy and Food Commissioner, in addition to the annual appropriation therefor.

[Added by Act No. 12, P. A. 1905. Am. by Act No. 242, P. A. 1913.]

17. SEC. 17. Any person, persons or corporation who shall sell milk or cream from a wagon or other conveyance, depot or store, or who shall sell or deliver milk or cream to a hotel, restaurant, boarding house or any public place, shall be considered a milk dealer; and every milk dealer who shall sell milk or cream from a wagon or other conveyance, depot or store, or who shall sell, or deliver milk or cream to a hotel, restaurant, boarding house or any public place in any city, town or village of this State, must first obtain a license from the Dairy and Food Commissioner to sell such milk or cream. A license shall be required for each wagon or other conveyance, depot or store. Each dealer shall pay to the Dairy and Food Commissioner a license fee of one dollar for each license so granted, which license must be obtained on or before the first day of July of each year. The moneys received by the Dairy and Food Commissioner, in payment of such licenses, shall be paid into the State Treasury and be used to help defray the expense of the office of the Dairy and Food Commissioner in addition to the annual appropriation. All licenses shall be used only in the name of the owner of the wagon, depot or store, and shall, for the purpose of this act, be prima facie evidence of ownership. No license shall be sold, assigned or transferred. Each license shall record the name, residence, place of business, number of wagons, depots or stores used (where more than one is employed) and the number of the license. Whoever violates any of the provisions of this section, insofar as relates to registration and the securing of licenses, shall be deemed guilty of a misdemeanor, and for each and every offense shall be punished by a fine not less than five dollars, nor more than twenty-five dollars and the costs of prosecution, or by imprisonment in the county jail for not more than thirty days, or both.

[Added by Act No. 12, P. A. 1905.]

18. SEC. 18. Repealed by Act No. 135, P. A. 1915.

19. SEC. 19. The published annual report of the Dairy and Food Commissioner which shall be made to the Governor, shall include a complete accounting of all moneys received by the department from every source, and the amount expended by the department.

[Added by Act No. 12, P. A. 1905.]

20. SEC. 20. All acts and parts of acts inconsistent with this act so far as they are inconsistent are hereby repealed.

This act is ordered to take immediate effect.

[Added by Act No. 12, P. A. 1905.]

(Act No. 167, Public Acts, 1899.)

AN ACT in relation to the powers and duties of the Dairy and Food Commissioner of the State of Michigan.

The People of the State of Michigan enact:

21. SECTION 1. That any person who shall obstruct the Dairy and Food Commissioner, or his deputy, or any of his duly appointed inspectors, by refusing to allow him entrance to any place where he is authorized to enter in the discharge of his official duty, or refuses to deliver to him a sufficient sample for the analysis of any article of food or drink sold, offered or exposed for sale, or in his possession for the purpose of sale, wherever the same may be found, when the same is requested and when the value thereof is tendered, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than twenty-five dollars nor more than one hundred dollars and the costs of prosecution, or by imprisonment in the county jail not less than ten days or more than ninety days, or by both such fine and imprisonment in the discretion of the court, for each and every offense.

This act is ordered to take immediate effect.

STANDARDS.

(Act No. 64, Public Acts, 1913.)

AN ACT to define and fix standards of purity for foods, beverages, condiments, confectionery and drugs in this state in prosecutions arising under the food, beverage and drug laws of the state of Michigan.

The People of the State of Michigan enact:

22. SECTION 1. In all prosecutions arising under the food and drug laws of this State for the manufacture or sale of an adulterated, misbranded or otherwise unlawful article of food, drink, condiment or drug, the latest standards of purity for food products, established by the United States secretary of agriculture, shall be accepted as the legal standards, except in cases where other standards are specifically prescribed by the laws of this State.

GENERAL FOOD LAW.

(Act No. 193, Public Acts, 1895.)

AN ACT to prohibit and prevent adulteration, fraud and deception in the manufacture, and sale of articles of food and drink.

The People of the State of Michigan enact:

23. (C. L., 5010) SECTION 1. No person, firm or corporation by themselves or their agents or servants shall within this State, have in their possession with intent to sell, or offer or expose for sale, or sell any article of food which is adulterated or misbranded within the meaning of this act.

[Am. by Act No. 118, P. A. 1897. Am. by Act No. 162, P. A. 1913.]

24. (C. L., 5011) SEC. 2. The term food as used herein, shall include all articles used for food, drink, confectionery or condiment intended to be eaten or drank by man or other animals, whether simple, mixed or compound.

[Am. by Act No. 162, P. A. 1913.]

25. (C. L., 5012) SEC. 3. An article shall be deemed to be adulterated within the meaning of this act:

First, If any substance or substances have been mixed with it so as to lower or depreciate or injuriously affect its quality, strength or purity;

Second, If any inferior or cheaper substance or substances have been substituted wholly or in part for it;

Third, If any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it;

Fourth, If it consists wholly or in part of a diseased, decomposed, putrid, infected, tainted or rotten animal or vegetable substance or article, whether manufactured or not, or in the case of milk, if it is the product of a diseased animal;

Fifth, If it is colored, coated, polished, bleached or powdered whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is;

Sixth, If it contains any added substance or ingredient which is poisonous or injurious to health: Provided, That nothing in this act shall prevent the coloring of pure butter.

SEC. 3. (a). An article shall be deemed to be misbranded within the meaning of this act:

First, If it is an imitation of or is offered for sale under the name of another article;

Second, If it is labeled or branded so as to deceive or mislead the purchaser, or purport to be a foreign product when not so, or if the contents of the package as originally put up shall have been removed

in whole or in part and other contents shall have been placed in such package;

Third, If in package form every package, box, bottle, basket or other container does not bear the true net weight, excluding the wrapper or container, which shall be stated in terms of pounds, ounces and grains avoirdupois weight or the true net measure, which measure, in case of liquids, shall be in terms of gallons of two hundred and thirty-one cubic inches or fractions thereof, as quarts, pints and ounces or the true numerical count, as the case may be, expressed on the face of the principal label in plain English words or numerals, so that it can be plainly read: Provided, however, That reasonable variations shall be permitted and tolerances therefor and also exemptions as to small packages shall be established and promulgated by the Dairy and Food Commissioner: Provided, however, That no penalty of fine, imprisonment or confiscation shall be enforced for any violation of subdivision third of this section prior to September first, nineteen hundred fourteen, as to goods in the hands of wholesalers or retailers when this act takes effect or received prior to January one, nineteen hundred fourteen. The provisions of this subdivision shall not apply to beverages in glass containers;

Fourth, If the package containing it or its label shall bear any statement, design or device regarding the ingredients or the substances contained therein, which statement, design or device shall be false or misleading in any particular: Provided, That the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles or ingredients of articles of food, if each and every package sold or offered for sale bear the name and address of the manufacturer or jobber or retail merchant with an established business, and be distinctly labeled under its own distinctive name, and in a manner so as to plainly and correctly show that it is a mixture or compound and is not in violation of any of the foregoing provisions of this act. Every article of food as defined in the statutes of this State shall be sold by weight, measure or numerical count and as now generally recognized by trade custom, except where the parties otherwise agree, and shall be labeled in accordance with the provisions of the food and beverage laws of this State. Only those products shall be sold by numerical count which cannot well be sold by weight or measure. All foods not liquid, if sold by measure, shall be sold by standard dry measure, the quart of which contains sixty-seven twenty one-hundredths cubic inches, providing that the provisions of this section shall not apply to fresh fruit and vegetables.

[Am. by Act No. 118, P. A. 1897. Am. by Act No. 162, P. A. 1913. Am. by Act No. 311, P. A. 1915.]

26. (C. L., 5013) SEC. 4. No person, by himself or his agents or servants, shall manufacture for sale or offer or expose for sale, or sell, as butter, and the legitimate product of the dairy or creamery, any article not made exclusively of milk or cream, but into which the oil or fat of animals, or any other oils not produced from milk, enters as a component part, has been introduced to take the place of cream. Whoever vio-

lates the provisions of this section shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty nor more than five hundred dollars, and the costs of prosecution, or by imprisonment in the county jail, or the State House of Correction and Reformatory at Ionia for not less than ninety days nor more than two years, or by both such fine and imprisonment in the discretion of the court for each and every offense.

27. SEC. 5. No person shall manufacture, deal in, sell, offer or expose for sale or exchange, any article or substance in the semblance of, or in imitation of cheese made exclusively of unadulterated milk or cream, or both, into which any animal, intestinal or offal fats or oils or melted butter in any condition or state, or modification of the same, or oleaginous substances of any kind not produced from unadulterated milk or cream shall have been introduced. All cheese manufactured or sold within this State shall be divided into two grades, to be known as "full cream cheese" and "skimmed milk cheese." All full cream cheese shall contain in water free substance not less than thirty per centum of milk fat, as may appear upon proper test, and all cheese containing less than thirty per centum of milk fat shall be known and branded as "skimmed milk cheese": Provided, That the provisions of this act shall not be construed to apply to such cheese as is known as "fancy cheese" and is under five pounds in weight each, nor to what is known as "Swiss cheese," "brick cheese," "Dutch cheese" or "cottage cheese," and does not contain anything injurious to health.

[Am. by Act No. 73, P. A. 1913.]

28. SEC. 6. Every manufacturer of full cream cheese may put a brand upon each cheese, indicating "full cream cheese," and no person shall use such a brand upon any cheese made from milk from which any of the cream has been taken. Every manufacturer of imitation cheese, as defined by this act, shall put a brand upon each cheese so manufactured, indicating "skimmed milk cheese," which brand shall be in plain Roman letters, not less than one-half inch in length, and so made, placed or attached that it can easily be seen and read and cannot be easily defaced, and the same shall be placed upon the cloth surrounding such cheese, as well as upon the container thereof.

[Am. by Act No. 118, P. A. 1897. Am. by Act No. 73, P. A. 1913.]

29. SEC. 7. The Dairy and Food Commissioner shall procure and issue to the cheese manufacturers of the State, on proper application, which application shall be made on or before the first day of April in each year, and under such regulation as to the custody and use thereof as he may prescribe, a uniform stencil brand, bearing a suitable device or motto and the words "Michigan full cream cheese," or "Michigan skimmed milk cheese." Every such brand shall be used on the outside of the cheese, and upon the package containing the same, and shall bear a separate number for each separate factory. The said commissioner shall keep a book in which shall be registered the name, location and number of each manufactory using the brand, and the name or

names of persons at each factory authorized to use the same. The commissioner shall receive a fee of one dollar for each registration, said fee to be paid by the party applying for the same, which amount shall be accounted for and used as a part of the fund appropriated for the enforcement of the laws of this State with which the Dairy and Food Commissioner is charged. No person shall knowingly offer, sell or expose for sale, in any package, cheese which is falsely branded or labeled. Whoever shall violate the provisions of sections five, six, seven or eight of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty nor more than five hundred dollars and the costs of prosecution, or by imprisonment in the county jail or the Michigan Reformatory at Ionia for not less than ninety days nor more than two years, or by both such fine and imprisonment in the discretion of the court for each and every offense.

[Am. by Act No. 73, P. A. 1913.]

30. SEC. 8. The proprietor or keeper of any hotel, restaurant, eating saloon, boarding house or other place where imitation cheese is sold or furnished to persons paying for the same, shall have placed on the walls of every store or room where imitation cheese is sold or furnished, a white placard on which is printed in black ink, in plain Roman letters of not less than three inches in length, and not less than two inches in width, the words "Skimmed Milk Cheese Sold or Used Here," and shall at all times keep the same exposed in such conspicuous place as to be readily seen by any and all persons entering such store, or other room or rooms, and any person or persons violating this section shall be deemed guilty of a misdemeanor, and punished as provided in section seven of this act.

[Am. by Act No. 73, P. A. 1913.]

31. (C. L., 5018) SEC. 9. No person shall within this State manufacture for sale, have in his possession with intent to sell, offer or expose for sale, or sell as lard, any substance not the legitimate and exclusive product of the fat of the hog.

32. (C. L., 5019) SEC. 10. Every person who manufactures for sale, has in his possession with intent to sell, offers or exposes for sale, or sells, any substance made in the semblance of lard, or as an imitation of lard, and which consists of any mixture or compound of animal or vegetable oils or fats other than hog fat, in the form of lard, shall cause the tierce, barrel, tub, pail or package containing the same to be distinctly and legibly branded or labeled "Lard substitute or compound," and every person who manufactures for sale, has in his possession with intent to sell, offers or exposes for sale or sells, any substance made in the semblance of lard or as an imitation of lard, or as a substitute for lard, and which is designed to take the place of lard, and which consists of any mixture or compound of lard with animal or vegetable oils or fats, shall cause the tierce, barrel, tub, pail or package containing the same to be distinctly and legibly branded or labeled either "Adulterated lard," "Lard compound," or "Lard substitute." Such brands or labels

shall be in letters not less than one inch in length and shall be followed with the name of the maker and factory, and the location of such factory.

33. (C. L., 5020) SEC. 11. Every dealer or trader who, by himself or agent, or as the servant or agent of another person, offers or exposes for sale, or sells any form of lard substitute or adulterated lard, as hereinbefore defined, shall securely affix or cause to be affixed to the package wherein the same is contained, offered for sale or sold, a label upon the outside and face of which is distinctly and legibly printed in letters not less than one-half inch in length, the words "Lard substitute" or "Adulterated lard" or "Lard compound" or other appropriate word which shall correctly express its nature and use.

34. (C. L., 5021) SEC. 12. The having in possession of any lard substitute or adulterated lard or lard compound, as hereinbefore defined, which is not branded or labeled as hereinbefore required and directed, upon the part of any dealer or trader, or any person engaged in the public sale of such articles, shall for the purpose of the act be deemed prima facie evidence of intent to sell the same.

35. (C. L., 5022) SEC. 13. No person, firm or corporation in this State shall manufacture for sale, or sell, or offer or expose for sale, as fruit jelly or fruit butter, any jelly or imitation fruit butter or other similar compound made or composed in whole or in part of glucose, dextrine, starch or other substances, and colored in imitation of fruit jelly or fruit butter; nor shall any such jelly, fruit butter or compound be manufactured or sold, or offered for sale, under any name or designation whatever, unless the same shall be composed entirely of ingredients not injurious to health, and shall not be colored in imitation of fruit jelly, and every can, pail or package of such jelly or butter sold in this State shall be distinctly and durably labeled "Imitation fruit jelly or butter," with the name of the manufacturer and the place where made. Whoever violates the provisions of this section shall be deemed guilty of a misdemeanor, and when convicted thereof shall be punished by a fine of not less than fifty nor more than five hundred dollars, or by imprisonment in the county jail or State House of Correction and Reformatory at Ionia for not less than ninety days nor more than two years, or by both such fine and imprisonment in the discretion of the court.

36. (C. L., 5023) SEC. 14. No packer or dealer in preserved or canned fruits and vegetables, or other articles of food, shall sell or offer for sale such canned articles, unless such articles shall be entirely free from substances or ingredients deleterious to health, and unless such articles bear a mark, stamp, brand or label bearing the name and address of the firm, person or corporation that packs or distributes the same. All "soaked or bleached goods" or goods put up from products dried before canning, shall be plainly marked, branded, stamped or labeled as such, with the words "soaked or bleached goods," in letters not less than two-line pica in size, showing the name of the article and the name and address of the packer or distributor.

[Am. by Act No. 226, P. A. 1915.]

37. (C. L., 5024) SEC. 15. No person shall manufacture or sell, or offer for sale any manufactured or artificial coffee berry in imitation of the genuine berry. No person shall manufacture, sell or offer or expose for sale any ground or prepared coffee, which is adulterated with chicory or other substance not injurious to health, unless each package thereof shall be distinctly labeled or marked "Coffee compound," together with the name and address of the manufacturer or compounder thereof, and has no other label of whatever name or designation. No person shall offer or expose for sale, have in his possession with intent to sell, or sell any molasses syrup or glucose, unless the barrel, cask, keg, can or pail containing the same shall be distinctly branded or labeled with the true and appropriate name; nor shall any person offer or expose for sale, have in his possession with intent to sell, or sell any molasses or syrup mixed with glucose, unless the barrel, cask, keg or pail containing the same be distinctly branded or labeled "Glucose mixture," and the per cent in which glucose enters into its composition. Such barrel, cask, keg or pail shall be branded or labeled in a conspicuous place; and such brands or labels shall be in letters of not less than one-half inch in length. Glucose and glucose mixtures shall have no other designation than herein required.

[Am. by Act No. 118, P. A. 1897.]

38. (C. L., 5025) SEC. 16. No person shall within this State manufacture, brew, distill, have or offer for sale, or sell, any spirituous or fermented or malt liquors, containing any substance or ingredient not normal or healthful, to exist in spirituous, fermented or malt liquors, or which may be deleterious or detrimental to health when such liquors are used as a beverage.

39. (C. L., 5026) SEC. 17. The taking of orders or the making of agreements or contracts, by any person, firm or corporation, or by any agent or representative thereof, for the future delivery of any of the articles, products, goods, wares or merchandise embraced within the provisions of this act, shall be deemed a sale within the meaning of this act.

40. (C. L., 5027) SEC. 18. Whoever shall falsely brand, mark, stencil or label any article or product required by this act to be branded, marked, stenciled, or labeled, or shall remove, alter, deface, mutilate, obliterate, imitate or counterfeit any brand, mark, stencil or label so required, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than one hundred nor more than one thousand dollars and the costs of prosecution, or by imprisonment in the county jail or State House of Correction and Reformatory at Ionia, for not less than six months nor more than three years, or by both such fine and imprisonment in the discretion of the court for each and every offense.

41. (C. L., 5028) SEC. 19. Whoever shall do any of the acts or things prohibited, or wilfully neglect or refuse to do any of the acts or things enjoined by this act, or in any way violate any of its provisions, shall be deemed guilty of a misdemeanor, and where no specific penalty is prescribed by this act shall be punished by a fine of not less than

twenty-five nor more than five hundred dollars, or by imprisonment in the county jail for a period of not more than ninety days, or by both such fine and imprisonment, in the discretion of the court.

[Am. by Act No. 117, P. A. 1899.]

42. (C. L., 5029) SEC. 20. It shall be the duty of the Dairy and Food Commissioner of the State to investigate all complaints of violations of this act, and take all steps necessary to its enforcement. It shall be the duty of all prosecuting officers of this State to prosecute to completion all suits brought under the provisions of this act upon the complaint of the commissioner or of any citizen. It shall be the duty of all food inspectors in cities to examine all complaints made to them of violation of this act, and to render assistance in enforcing its provisions. It shall also be the duty of all health boards in cities and health officers in townships to take cognizance of and report or prosecute all violations of this act that may be brought to their notice, or they may have cognizance of, within their jurisdiction.

43. SEC. 21. All acts and parts of acts inconsistent with this act are hereby repealed.

BUCKWHEAT FLOUR.

(Act No. 208, Public Acts, 1903.)

AN ACT in relation to the manufacture and sale of buckwheat flour.

The People of the State of Michigan enact:

44. SECTION 1. Within this State no person shall manufacture, offer or expose for sale, keep in possession with intent to sell, or sell, any ground buckwheat containing any product of wheat, corn, rice or other foreign substance, unless each and every package thereof be distinctly and legibly branded or labeled "Buckwheat Flour Compound" in letters not less than one-half inch in length and be followed with the name of the maker and factory and the location of such factory.

45. SEC. 2. Any brand or label herein required shall be an inseparable part of the general or distinguishing label, and such label shall be that principal and conspicuous sign under which it is sold, and any other label or printed matter upon the package shall not be in contravention of the requirements of this act.

46. SEC. 3. The having in possession of any buckwheat flour compound, which is not branded or labeled as hereinbefore required and directed upon the part of any person engaged in the public or private sale of such article, shall, for the purpose of this act, be deemed prima facie evidence of intent to sell the same.

47. SEC. 4. The taking of orders or the making of agreements or contracts by any person, firm or corporation or by any agent or repre-

sentative thereof, for the future delivery of buckwheat flour compound shall be deemed a sale within the meaning of this act.

48. SEC. 5. Whoever shall do any of the acts or things prohibited, or neglect or refuse to do any of the acts or things enjoined by this act, or in any way violate any of the provisions, shall be deemed guilty of a misdemeanor, and shall be punished by a fine not less than twenty-five dollars nor more than one hundred dollars, or by imprisonment in the county jail for a period of not less than thirty nor more than ninety days, or by both such fine and imprisonment in the discretion of the court.

49. SEC. 6. Act number eighty-four of the Public Acts of eighteen hundred ninety-seven, entitled "An act to prohibit and prevent adulteration, fraud and deception in the manufacture and sale of buckwheat flour," being sections four thousand nine hundred ninety-four to five thousand two, both inclusive, of the Compiled Laws of one thousand eight hundred ninety-seven is hereby repealed.

VINEGAR.

(Act No. 384, Session Laws 1913.

AN ACT in relation to the manufacture and sale of vinegar, and to repeal act number seventy-one of the Public Acts of eighteen hundred ninety-seven, being sections five thousand three to five thousand six inclusive of the Compiled Laws of eighteen hundred ninety-seven, and all other acts and parts of acts inconsistent with this act.

The People of the State of Michigan enact:

50. SECTION 1. No person shall manufacture for sale, offer or expose for sale, sell or deliver, or have in his possession with intent to sell or deliver, any vinegar not in compliance with the provisions of this act.

51. SEC. 2. The word "vinegar" as used herein is limited to a water solution of acetic acid derived by the alcoholic and subsequent acetous fermentations of fruits, grain, vegetables, sugar or syrups, and if not distilled must carry in solution the extractive matter derived solely from the substances indicated on the label as its source.

52. SEC. 3. No vinegar shall be sold or exposed for sale as apple or cider vinegar which is not the legitimate product of pure apple juice. The term "cider vinegar" as used herein shall be construed to mean vinegar derived by the alcoholic and subsequent acetous fermentation of the expressed juice of apples, the acidity, solids and ash of which have been derived exclusively from apples, and which contains not less than four per cent of absolute acetic acid. Cider vinegar which during the course of manufacture has developed in excess of four per cent acetic acid, may be reduced to a strength of not less than four

per cent, and cider vinegar so reduced shall not be regarded as adulterated. Every manufacturer or producer of cider vinegar shall plainly brand on the head of the cask, barrel or keg or other container of such vinegar, his name, place of business and the words "fermented cider vinegar," and no person shall mark or brand as cider vinegar any package containing that which is not cider vinegar. Any vinegar sold or offered for sale shall be marked or branded plainly upon the package or container from which it is sold and also on the original package or container in which it is sold or delivered, in a manner to show its true character and source.

53. SEC. 4. All sugar vinegar sold or exposed for sale as such shall be strictly and distinctly fermented from sucrose, molasses or refiner's syrup.

54. SEC. 5. No vinegar shall be sold or exposed for sale as malt vinegar which is not fermented strictly and distinctly from barley malt, or cereals whose starch has been converted to malt.

55. SEC. 6. No vinegar shall be sold or exposed for sale in which foreign substances, drugs or acids shall have been introduced. No vinegar shall contain any artificial coloring matter, and all vinegar shall have an acidity of not less than four per cent by weight of absolute acetic acid. If vinegar contains any artificial matter, or less than the required amount of acidity, it shall be deemed to be adulterated.

56. SEC. 7. All vinegar made by fermentation and oxidation without the intervention of distillation, shall be branded "fermented" vinegar, with the name of the fruit or substance from which such vinegar has been made.

57. SEC. 8. All vinegar made by acetous fermentation of dilute distilled alcohol shall be branded "distilled" vinegar, together with the name of the substance or substances from which it is made, and all vinegar made wholly or in part from distilled vinegar shall be conspicuously labeled "distilled vinegar."

58. SEC. 9. Whoever violates any of the provisions of this act shall, upon conviction, be punished by a fine of not more than two hundred dollars or imprisonment in the county jail not to exceed six months or both such fine and imprisonment in the discretion of the court.

59. SEC. 10. Act number seventy-one of the Public Acts of eighteen hundred ninety-seven, being sections five thousand three to five thousand six of the Compiled Laws of eighteen hundred ninety-seven, and all other acts and parts of acts inconsistent with this act are hereby repealed.

MILK.

(Act No. 26, Public Acts 1873.)

AN ACT to prevent and punish offenders for the adulteration of milk, and the products made therefrom, and to repeal an act entitled "An act to prevent the adulteration of milk and to prevent the traffic in impure and unwholesome milk," approved March thirty-first, eighteen hundred and seventy-one.

The People of the State of Michigan enact:

60. (C. L., 11411) SECTION 1. That whoever shall knowingly sell to any person or persons, or sell, deliver or bring to be manufactured to any cheese or butter manufactory in this State, any milk diluted with water, or in any way adulterated, or milk from which any cream has been taken, or milk commonly known as "skimmed milk," or shall keep back any part of the milk known as "strippings," with intent to defraud, or shall knowingly sell milk, the product of a sick or diseased animal or animals or any milk produced from any cow fed upon the refuse of a distillery, or of a brewery, or upon any substance deleterious to the quality of the milk, or shall knowingly use any poisonous or any deleterious material in the manufacture of any cheese or butter, or shall knowingly sell or offer to sell any cheese or butter, in the manufacture of which any poisonous or deleterious substance has been used, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be fined not less than ten dollars nor more than one hundred dollars, and may be committed to the county jail until such fine shall be paid: Provided, That such imprisonment shall not exceed ninety days; and shall be liable in double the amount of damages to the person or persons, firm, association, or corporation upon which such fraud shall have been committed. An act, entitled "An act to prevent the adulteration of milk and to prevent the traffic in impure and unwholesome milk," approved March thirty-first, eighteen hundred and seventy-one, is hereby repealed: Provided, That any right accrued or forfeiture incurred under said act, shall remain valid and binding, and may be enforced under said act as if the same were not repealed.

(Act No. 246, Public Acts, 1887.)

AN ACT to prevent the sale of impure, unwholesome, adulterated, or swill milk in the State of Michigan, and to provide for inspectors.

The People of the State of Michigan enact:

61. (C. L., 11412. SECTION 1. That it shall be unlawful for any person, either by himself or agent, to sell or expose for sale within the State of Michigan any unwholesome watered, or adulterated or impure milk or swill milk or colostrum or milk from cows kept upon garbage, swill or any substance in a state of fermentation or putrefaction or other deleterious substances, or from cows kept in connection with any family in which there are infectious diseases. The addition of water or ice to milk is hereby declared an adulteration.

[Am. by Act No. 219, P. A. 1889.]

62. (C. L., 11413) SEC. 2. Any person who shall violate any of the provisions of the preceding section shall be punished by a fine not to exceed one hundred dollars or (by) imprisonment not to exceed three months or by both such fine and imprisonment in the discretion of the court.

63. (C. L., 11414) SEC. 3. It shall be the duty of the metropolitan police commissioners of the city of Detroit, by and with the consent and advice of the board of health of the city of Detroit, to appoint an inspector, who shall be a person of previous practical experience. Said inspector may be created captain, sergeant or roundsman of the said police force of the city of Detroit, at the option of the board of metropolitan police commissioners.

64. (C. L., 11415) SEC. 4. It shall be the duty of said inspector to personally view, so far as possible, all milk exposed for sale in said city, and to visit all dairy houses, barns or stables in said city or the county of Wayne, to inspect the same, and the animals held therein, and to visit all places where milk is kept or exposed for sale in the city of Detroit, and to inspect and ascertain the condition of said milk. He may detail any patrolman of said city to assist him in the performance of any or all of the duties enjoined on him by this act: Provided, always, That said inspector and any policeman so detailed shall always be subject to the provisions of the law establishing and governing the metropolitan police of said city.

65. (C. L., 11416) SEC. 5. It shall be the duty of said inspector or of his assistant, and of all other inspectors appointed under this act, to make complaint in writing before a police justice or justice of the peace, or other court having jurisdiction thereof, of every violation of this act coming to his knowledge.

[Am. by Act No. 219, P. A. 1889.]

66. (C. L., 11417) SEC. 6. Each and every quantity of milk sold or exposed for sale contrary to the provisions of this act, shall constitute a separate offense.

67. (C. L., 11418) SEC. 7. Any person who shall refuse to permit the said inspector, or his assistant (assistants) to perform his duty under this act, either by refusing him entrance to his premises or by concealing any milk, or refusing to permit any milk or animal or premises wherein animals are kept, to be viewed and inspected as herein provided, or by in any manner hindering or resisting any said inspector or assistant inspector in the performance of his duty, shall be guilty of a misdemeanor, and punished therefor.

68. (C. L., 11419) SEC. 8. Authority is hereby given the common council of any city, and the board of trustees or council of any village, to appoint an inspector of milk in any such city or village, and to fix their compensation, and when appointed the said inspectors of milk shall have all the powers given by section four of this act, and shall perform all the duties required of inspectors of milk as provided herein, and such other powers and duties as may be conferred or imposed by the ordinances of said cities or villages.

69. (C. L., 11420) SEC. 9. Whoever shall adulterate by himself or by his servant or agent, or sell, exchange or deliver, or have in his custody or possession with intent to sell or exchange the same, or exposes or offers for sale or exchange, adulterated milk or milk to which water or any foreign (substance) substances in any state of fermentation or putrefaction, or from sick or diseased cows, shall be guilty of a misdemeanor, and shall, for every such offense, be punished by a fine not exceeding one hundred dollars or by imprisonment in the county jail or the State House of Correction and Reformatory at Ionia not exceeding three months.

[Added by Act No. 219, P. A. 1889.]

70. (C. L., 11421) SEC. 10. Whoever shall adulterate, himself or by his servant or agent, sell, exchange or deliver, or have in his custody or possession with intent to sell or exchange the same, or exposes or offers for sale as pure milk, any skimmed milk from which the cream or any part thereof has been removed shall be guilty of a misdemeanor, and shall for such offense, be punished by the penalty provided in the preceding section.

[Added by Act No. 219, P. A. 1889.]

71. (C. L., 11422) SEC. 11. Any dealer in milk who shall by himself, servant or agent, sell, exchange or deliver, or have in his custody or possession with intent to sell, exchange or deliver the same, milk from which the cream or any part thereof has been removed, unless in a conspicuous place above the center upon the outside of every vessel, can or package from which any such milk is sold, the words "Skimmed milk" are distinctly painted in letters not less than one inch in length, shall be guilty of a misdemeanor and shall be punished by a fine not exceeding one hundred dollars or by imprisonment in the county jail or Detroit House of Correction not exceeding three months.

[Added by Act No. 219, P. A. 1889.]

72. (C. L., 11423) SEC. 12. If milk sold or offered for sale under the provisions of this act as pure milk, is shown upon analysis by weight to contain more than eighty-seven and fifty one-hundredths per centum of watery fluid, or to contain less than twelve and fifty one-hundredths of milk solids per centum, or less fat than three per centum, or if the specific gravity at 60 degrees Fahrenheit is not between 1.29-1000 to 1.33-1000, it shall be deemed to be adulterated. If milk sold or offered for sale under the provisions of this act as skimmed milk has a specific gravity at 60 degrees Fahrenheit less than 1.032 and greater than 1.037, it shall be deemed to be adulterated.

[Added by Act No. 219, P. A. 1889.]

73. (C. L., 11424) SEC. 13. Whenever any inspector of milk has reason to believe that any milk found by him is adulterated, he shall take specimens thereof and test the same with such instrument or instruments as are used for such purposes, and he shall make an analysis thereof, showing total solids, the percentage of butter, the percentage of water and the percentage of ash; and if the result of such test and analysis indicates that the milk has been adulterated or deprived of its cream or any part thereof, the same shall be prima facie evidence of such adulteration in a prosecution under this act.

[Added by Act No. 219, P. A. 1889.]

74. (C. L., 11425) SEC. 14. Any person who shall remove the cream or any part thereof from milk to be sold as pure milk to any manufactory in which milk is used as a material in the process of production, and any person who shall, in any manner, adulterate such milk, either by the addition of water or otherwise, shall be guilty of a misdemeanor, and shall, for every such offense be punished by a fine not exceeding one hundred dollars, or by imprisonment in the county jail or Detroit House of Correction not exceeding ninety days.

[Added by Act No. 219, P. A. 1889.]

(Act No. 106, Public Acts, 1899.)

AN ACT in relation to the sale and delivery of milk.

The People of the State of Michigan enact:

75. SECTION 1. No person shall offer or expose for sale, sell, exchange or deliver, or have in his possession with intent to sell, exchange or deliver, any milk to which water, chemicals or preservatives, or any other foreign substance has been added. The term milk as used in this act shall include all skimmed milk, buttermilk, cream and milk in its natural state as drawn from the cow.

76. SEC. 2. Whoever shall do any of the acts or things prohibited,

or neglects or refuses to do any of the acts or things enjoined by this act, or in any way violates any of its provisions, shall be deemed guilty of a misdemeanor and shall be punished by a fine of not less than one dollar nor more than one hundred dollars and the costs of prosecution, or by imprisonment in the county jail not more than ninety days, or by both such fine and imprisonment in the discretion of the court.

This act is ordered to take immediate effect.

INSANITARY MILK AND CREAM.

(Act No. 222, Session Laws 1913.)

AN ACT to prevent and punish the sale of unclean and insanitary cream and milk and the use thereof in the manufacture of food products and to prohibit unclean and insanitary conditions of creameries, cheese factories, ice cream factories and milk dealer's establishments or out-fits and fixing standards of sanitary milk and cream, and to regulate the sale and transportation of the same.

The People of the State of Michigan enact:

77. SECTION 1. For the purpose of this act, the term "milk" shall mean the fresh, clean, lacteal secretion obtained by the complete milking of one or more healthy cows, properly fed and kept, excluding that obtained within eight days before and four days after calving, and contains not less than eight and one-half per cent of solids not fat, and not less than three per cent of milk fat; and the term "cream" shall mean that portion of milk, rich in milk fat, which rises to the surface of milk on standing, or is separated from it by centrifugal force, is fresh and clean, and contains not less than eighteen per cent of milk fat. Milk which shall be drawn from cows that are kept in barns or stables which are not reasonably well lighted and ventilated, or that are kept in barns or stables that are filthy from an accumulation of animal feces and excreta or from any other cause, or milk which shall be drawn from cows which are themselves in a filthy condition; or milk kept or transported in dirty, rusty or opened-seamed cans or other utensils; or milk that is stale, putrescent, or putrid; or milk to which has been added any unclean, or unwholesome foreign substance; or milk which has been kept exposed to foul or noxious air or gases in barns occupied by animals, or kept exposed in dirty, foul or unclean places or conditions, is hereby declared to be insanitary milk. Cream produced from any such aforesaid insanitary milk; or cream produced by the use of a cream separator, which separator had not been thoroughly washed, cleansed and scalded after previous use in the separation of cream from milk; or cream produced by the use of a cream separator placed or stationed in any unclean or filthy room or place or in any building containing a stable wherein are kept cattle or other animals,

unless such cream separator is so separated and shielded by a partition from the stable portion of such building as to be free from all foul or noxious air or gasses which issue or may issue from such place or stable; or cream that is stale, putrescent, or putrid; or cream that is kept or transported in dirty, rusty or open-seamed cans or other utensils; or cream which has been kept exposed to foul or noxious air or gases in barns occupied by animals, or in dirty, foul or unclean places or conditions, is hereby declared to be insanitary cream.

78. SEC. 2. No person shall by himself, his servant or agent, or as the servant or agent of any other person, or as the officer, servant or agent of any firm or corporation, sell or offer for sale, furnish or deliver, or have in possession or under his control with intent to sell or offer for sale, or furnish, or deliver to any person, firm or corporation as food for man, or to any creamery, cheese factory, milk condensing factory, or milk or cream dealer, any insanitary milk or any insanitary cream.

79. SEC. 3. No person shall by himself, his servant or agent, or as the servant or agent of any other person, or as the servant or agent of any firm or corporation, manufacture for sale any article of food for man from any insanitary milk or from any insanitary cream.

80. SEC. 4. All premises and utensils used in the handling of milk, cream, and by-products of milk, and all premises and utensils used in the preparation, manufacture, or sale, or offering for sale of any food product for man from milk or cream or the by-products of milk, which shall be kept in an unclean, filthy or noxious condition are hereby declared to be insanitary. It shall be unlawful for any person, firm, or corporation engaged in selling, or furnishing milk, cream, or any by-products of milk, intended for use as food for man; and it shall be unlawful for any person, firm or corporation engaged in selling or furnishing milk, cream, or any by-products of milk, to any creamery, cheese factory, milk condensing factory, or to any place where such milk, cream, or by-products of milk are manufactured or prepared into a food product for man, and for sale as such; and it shall be unlawful for any milk dealer, or an employe of such milk dealer, or any person, firm or corporation, or the employ of such person, firm, or corporation, who operates a creamery, cheese factory, milk condensing factory, or who manufacturers or prepares for sale any article of food for man from milk, cream, or by-product of milk, or who manufactures, re-works, or packs butter for sale as a food product, to maintain his premises and utensils in an insanitary condition.

81. SEC. 5. Any person, firm or corporation, not a common carrier who receives from a common carrier in cans, bottles or other vessels any milk, or cream, ice cream or other dairy product intended as food for man, which has been transported over any railroad or boat line or by other common carrier, when such cans, bottles or vessels are to be returned, shall cause the said cans, bottles, or other vessels to be thoroughly washed and cleansed before return shipment.

82. SEC. 6. Any person who by himself, his servant or agent, or as the servant or agent of any other person, or as the officer, servant or agent of any firm or corporation, who violates any provision of

STATE OF MICHIGAN

IN SENATE,
January 10, 1906.
REPORT
OF THE
COMMISSIONER OF THE
LAND OFFICE,
FOR THE YEAR
1905.

REPORT OF THE COMMISSIONER OF THE LAND OFFICE

FOR THE YEAR 1905.

The following report of the Commissioner of the Land Office for the year 1905, is submitted to the Senate in accordance with the provisions of the act of the Legislature of 1904, relating to the Land Office, and the act of the Legislature of 1905, relating to the Land Office.

THE LAND OFFICE OF THE STATE OF MICHIGAN

The Land Office of the State of Michigan is a department of the Executive branch of the State Government, and is charged with the management and control of the public lands of the State. It is organized under the provisions of the act of the Legislature of 1904, relating to the Land Office, and the act of the Legislature of 1905, relating to the Land Office. The Land Office is headed by the Commissioner of the Land Office, who is appointed by the Governor of the State. The Commissioner of the Land Office is assisted by a Deputy Commissioner, and a number of other officers and employees. The Land Office is responsible for the management and control of the public lands of the State, and for the collection of the taxes and fees on such lands. The Land Office also has the honor of presenting to the Senate this report for the year 1905.

this act shall, upon conviction thereof, be punished by a fine of not more than one hundred dollars for each and every offense, or shall be imprisoned in the county jail not more than sixty days.

CONDENSED MILK LAW.

(Act No. 176, Session Laws 1913.)

AN ACT to regulate the sale of condensed milk, and to provide for the labeling thereof so as to prevent fraud and deception.

The People of the State of Michigan enact:

83. SECTION 1. Every container of evaporated, concentrated or condensed whole milk, and every container of evaporated, concentrated or condensed skimmed milk, sold or offered for sale or had in possession or custody with intent to sell by any person, firm or corporation within this State, shall have plainly printed thereon in the English language, or attached thereto on some firmly affixed tag or label, a formula for extending the said evaporated, concentrated or condensed milk and said evaporated, concentrated or condensed skimmed milk, respectively, with water. The formula for the extension of said evaporated, concentrated or condensed whole milk shall be such that the resulting milk product shall not be below the Michigan standard of milk solids or fat for whole milk, and shall be in the following form: By adding parts of water to one part of the contents of this can a resulting milk product will be obtained which will not be below the legal standard for whole milk. The formula for the extension of said evaporated, concentrated or condensed skimmed milk shall be such that the resulting milk product shall not be below the Michigan standard of milk solids for skimmed milk, and shall be in the following form: By adding parts of water to one part of the contents of this can a resulting milk product will be obtained which will not be below the legal standard for skimmed milk.

84. SEC. 2. Whoever, himself or by his servant or agent, or as the servant or agent of any person, firm or corporation, sells, exchanges or delivers, or has in his custody or possession with intent to sell, exchange or deliver any container of evaporated, concentrated or condensed milk, within this State, not marked or labeled in compliance with the provisions of this act shall, for the offense, be punished by a fine of not more than one hundred dollars or by imprisonment for not less than three nor more than six months.

85. SEC. 3. The provisions of this act with reference to the labeling of containers of condensed, concentrated and evaporated skimmed milk shall take effect upon the first day of October, in the year nineteen hundred thirteen; the remaining provisions of this act shall take effect upon the first day of January in the year nineteen hundred fourteen.

OLEOMARGARINE.

(Act No. 63, Public Acts, 1913.)

AN ACT to regulate the manufacture, display, advertisement and sale of oleomargarine or imitation butter and to prevent fraud and deception therein and to provide penalties for violations thereof, and to repeal act number one hundred forty-seven of the Public Acts of eighteen hundred ninety-nine, entitled "An act in relation to the manufacture and sale of oleomargarine or imitation butter."

The People of the State of Michigan enact:

86. SECTION 1. No person shall sell, expose or offer for sale or exchange, or have in his possession with intent to sell or exchange, any oleomargarine or other substance made in imitation of butter, and which is intended to be used as a substitute for butter, unless each and every vessel, package, roll or parcel of such substance has distinctly and durably printed, stamped or stenciled thereon in black letters the true name of such substance, in ordinary bold faced capital letters, not less than five line pica in size; and also the name and address of the manufacturer, in ordinary bold faced letters, not less than pica in size.

87. SEC. 2. No person shall sell, exchange or deliver any oleomargarine or other substance made in imitation of butter, and which is intended to be used as a substitute for butter, unless he shall also deliver to the purchaser of each and every roll, package or parcel of such oleomargarine or other substance, at the time of the delivery of the same, a distinct label, on which is plainly and legibly printed in black ink in ordinary bold faced capital letters not less than five line pica in size, the true name of such substance and also the name and address of the manufacturer, in ordinary bold faced letters not less than pica in size.

[Am. by Act No. 116, P. A. 1915.]

88. SEC. 3. The proprietor or keeper of any store, hotel, restaurant, eating saloon, boarding house, or other place where oleomargarine is sold or furnished to persons paying for the same, shall have placed on the walls of every store or room where oleomargarine is sold or furnished a white placard on which is printed in black ink, in plain Roman letters of not less than three inches in length, and not less than two inches in width, the words "Oleomargarine sold or used here," and shall at all times keep the same exposed in such conspicuous place as to be readily seen by any and all persons entering such store, or other room or rooms.

89. SEC. 4. No person shall use in any way, in connection or association with the sale or exposure for sale or advertisement of any substance designed to be used as a substitute for butter, the word "butter," "creamery," or "dairy," or the name or representation of any breed of dairy cattle, or any combination of such word or words and representa-

tion, or any other words or symbols or combination thereof commonly used in the sale of butter.

90. SEC. 5. For the purpose of this act the word "butter" shall be understood to mean the food product usually known as butter, and which is made exclusively from milk or cream, or both, with or without common salt, and with or without additional coloring matter.

91. SEC. 6. For the purpose of this act certain manufactured substances, certain extracts and certain mixtures and compounds, including such mixtures and compounds with butter, shall be known and designated as "oleomargarine," namely: All substances heretofore known as oleomargarine, oleo, oleomargarine oil, butterine, lardine, suine and neutral; all mixtures and compounds of oleomargarine, oleo, oleomargarine oil, butterine, lardine, suine and neutral; all lard extracts and tallow extracts; and all mixtures and compounds of tallow, beef fat, suet, lard, lard oil, vegetable oil, butterine, lardine, suine and neutral; all lard extracts and tallow extracts; and all mixtures and compounds of tallow, beef fat, suet, lard, lard oil, vegetable oil, intestinal fat, and offal fat, made in imitation or semblance of butter, or when so made, calculated or intended to be sold or used as butter or for butter.

92. SEC. 7. Whoever violates any of the provisions of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty dollars, nor more than five hundred dollars, and the costs of prosecution, or by imprisonment in the county jail or state house of correction and reformatory at Ionia, for not less than six months nor more than three years, or by both such fine and imprisonment in the discretion of the court, for each and every offense. All acts or parts of acts inconsistent with the provisions of this act are hereby repealed.

93. SEC. 8. Act number one hundred forty-seven of the Public Acts of eighteen hundred ninety-nine, is hereby repealed.

(Act No. 22, Public Acts, 1901.)

AN ACT to prevent deception in the manufacture and sale of imitation butter.

The People of the State of Michigan enact:

94. SECTION 1. No person, by himself or his agents, or servants, shall render or manufacture, sell, or offer for sale, expose for sale, or have in his possession with intent to sell, any article, product or compound made wholly or in part out of any fat, oil or oleaginous substance or compound thereof, not produced from unadulterated milk or cream from the same, which shall be in imitation of yellow butter produced from pure unadulterated milk or cream of the same: Provided, That nothing in this act shall be construed to prohibit the manufacture or

sale of oleomargarine in a separate and distinct form, and in such manner as will advise the consumer of its real character, free from coloration or ingredient that causes it to look like butter.

95. SEC. 2. Whoever violates any of the provisions of section one of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punished by a fine of not less than fifty dollars nor more than five hundred dollars, and the costs of prosecution, or by imprisonment in the county jail or State House of Correction and Reformatory at Ionia for not less than six months nor more than three years, or by both such fine and imprisonment in the discretion of the court, for each and every offense.

RENOVATED BUTTER.

(Act No. 243, Public Acts, 1903, as amended.)

AN ACT in relation to the manufacture and sale of renovated butter.

The People of the State of Michigan enact:

96. SECTION 1. No person, firm or corporation shall manufacture for sale, offer or expose for sale, sell, exchange or deliver, or have in his possession with the intent to sell, exchange or deliver, any butter that is produced by taking original packing stock butter or other butter, or both, melting the same so that the butter fat can be drawn off or extracted, mixing the said butter fat with skimmed milk, or milk or cream, or other milk product; and re-churning or re-working the said mixture; nor shall any person, firm or corporation manufacture for sale, offer or expose for sale, sell, exchange or deliver, or have in his possession for any such purpose any butter which has been subjected to any process by which it is melted, clarified or refined, and made to resemble butter, and is commonly known as boiled, process or renovated butter, and which for the purpose of this act is hereby designated as "Renovated Butter," unless the same shall be branded or marked as provided in section two of this act.

97. SEC. 2. Whoever, himself or by his agent or as the servant or agent of another person, shall sell, expose for sale or have in his custody or possession with the intent to sell any renovated butter as defined in section one of this act, shall have the words "renovated butter" conspicuously stamped, labeled or marked in one or two lines and in plain Gothic letters, at least three-eighths of an inch square, so that the words cannot easily be defaced, upon two sides of each and every tub, firkin, box or package, containing said renovated butter; or if such butter is exposed for sale uncovered, or not in a case or package, a placard containing said words in the same form as above described in this section shall be attached to the mass in such a manner as to be easily seen and read by the purchaser. When renovated butter is sold from such packages or otherwise at retail in print, roll or other form, before be-

ing delivered to the purchaser, it shall be wrapped in wrappers plainly stamped on the outside thereof with the words "renovated butter" printed or stamped thereon in one or two lines, and in plain Gothic letters at least three-eighths of an inch square, and such wrappers shall contain no other words or printing thereon, and said words "renovated butter" so stamped or printed on the said wrapper shall not be in any manner concealed, but shall be in plain view of the purchaser at the time of the purchase. The proprietor or keeper of any hotel, restaurant, eating saloon, boarding house, or other place where renovated butter is furnished to persons paying for the same, shall have placed on the walls of every store or room where renovated butter is furnished, a white placard on which is printed in black ink, in plain Roman letters of not less than three inches in length, and not less than two inches in width, the words "renovated butter used here," and shall at all times keep the same exposed in such conspicuous place as to be readily seen by any and all persons entering such store, hotel, restaurant or other room or rooms.

[Am. by Act No. 119, P. A. 1909. Am. by Act No. 15, P. A. 1915.]

98. SEC. 3. Whoever shall violate any of the provisions of this act shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than twenty-five dollars nor more than five hundred dollars, and the costs of prosecution, or by imprisonment in the county jail or Michigan Reformatory at Ionia, for not less than six months nor more than three years, or by both such fine and imprisonment, in the discretion of the court, for each and every offense.

99. SEC. 4. Act number two hundred fifty-four of the public acts of eighteen hundred ninety-nine, entitled "An act to regulate the sale of butter produced by taking original packing stock and other butter and melting the same so that the butter oil can be drawn off, mixed with skimmed milk or other material, and by emulsion or other process produce butter, and butter produced by any similar process and commonly known as "process" butter; providing for the enforcement thereof, and punishment for the violation of the same," is hereby repealed.

BUTTER AND CREAM STANDARDS.

(Act No. 244, Public Acts, 1913.)

AN ACT to regulate the sale of butter and cream in the State of Michigan, and to prescribe a penalty for the violation of this act.

The People of the State of Michigan enact:

100. SECTION 1. No person shall offer or expose for sale, have in his possession with intent to sell, or sell as butter any product which contains less than eighty per cent of milk fat, and which is not made ex-

clusively from milk or cream, or both, with or without common salt and with or without additional coloring matter.

101. SEC. 2. No person shall offer or expose for sale, have in his possession with intent to sell, or sell as cream any product which contains less than eighteen per cent of milk fat, and which is not that portion of milk, rich in milk fat, which rises to the surface of milk on standing, or is separated from it by centrifugal force, and which is not clean: Provided, That the provisions of this act shall not be deemed to apply to any person not a manufacturer or producer of butter and cream, who has bought the products mentioned in this act for resale, and when found to be under the standard prescribed by this act, shall furnish information from whom his products were received.

102. SEC. 3. Whoever shall do any of the acts or things prohibited, or wilfully neglect or refuse to do any of the acts or things enjoined by this act, or in any way violate any of its provisions, shall be deemed guilty of a misdemeanor, and where no specific penalty is prescribed by this act shall be punished by a fine of not less than twenty-five nor more than one hundred dollars, or by imprisonment in the county jail for a period of not more than ninety days, or by both such fine and imprisonment in the discretion of the court.

CANDY.

(Act No. 207, Public Acts, 1911.)

AN ACT to prevent the adulteration of candies and to regulate the sale thereof.

The People of the State of Michigan enact:

103. SECTION 1. No person, firm, or corporation shall manufacture for sale, offer or expose for sale, sell, exchange or deliver, or have in his possession with the intent to sell, exchange or deliver, any candies or confectioneries adulterated by the admixture of terra alba, barytes talc or other earthy or mineral substances, or any poisonous colors, flavors or extracts, or other deleterious ingredients detrimental to health.

104. SEC. 2. Whoever violates any of the provisions of section one of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty dollars nor more than one thousand dollars and the costs of prosecution, or by imprisonment in the county jail or State House of Correction and Reformatory at Ionia for not less than six months nor more than three years, or by both such fine and imprisonment in the discretion of the court for each and every offense.

105. SEC. 3. All acts and parts of acts inconsistent with this act are hereby repealed.

PEPPER.

(Act No. 180, Public Acts, 1901.)

AN ACT to provide for the manufacture and sale of black pepper in this State and to provide a penalty for the violation of the provisions of this act.

The People of the State of Michigan enact:

106. SECTION 1. Within this State no person, firm or corporation shall manufacture, offer or expose for sale, keep in possession with intent to sell, or sell any ground or whole black pepper containing any foreign substance whatever. All black pepper shall contain not more than six and one-half per cent ash or mineral matter; and shall contain not less than twenty-five per cent starch as determined by the diastase method; and shall contain not less than six-tenths of one per cent nor more than one and three-fourths per cent volatile ether extract; and shall contain not more than ten per cent nor less than six and one-half per cent of non-volatile ether extract; and shall contain not more than sixteen per cent of crude fibre.

107. SEC. 2. Whoever shall do any of the acts or things prohibited, or neglects or refuses to do any of the acts or things enjoined by this act, or in any way violates any of its provisions, shall be deemed guilty of a misdemeanor, and shall be punished by a fine not less than twenty-five dollars nor more than five hundred dollars and the costs of the prosecution, or by imprisonment in the county jail not more than ninety days, or by both such fine and imprisonment, in the discretion of the court.

CORN SYRUP.

(Act No. 123, Public Acts, 1903.)

AN ACT in relation to the sale of corn syrup.

The People of the State of Michigan enact:

108. SECTION 1. No person shall offer or expose for sale, have in his possession with intent to sell, or sell, any cane syrup, beet syrup, or glucose, unless the barrel, cask, keg, can, pail or package containing the same be distinctly branded or labeled with the true and appropriate name; nor shall any person offer or expose for sale, have in his possession with intent to sell, or sell any cane syrup or beet syrup mixed with glucose unless the barrel, cask, keg, can, pail or package containing the same be distinctly branded or labeled "Glucose Mixture" or "Corn Syrup," in plain gothic type not less than three-eighths of an inch

square, with the name and percentage by weight of each ingredient contained therein plainly stamped, branded or stenciled on each package in plain Gothic letters not less than one-quarter of an inch square. Each and every package of syrup either simple or mixed shall bear the name and address of the manufacturer. Such mixtures or syrups shall have no other designation or brand than herein required that represents or is the name of any article which contains a saccharine substance; and all brands or labels required shall be an inseparable part of the general or distinguishing label, and that the general or distinguishing label shall be that principal and conspicuous sign under which it is sold.

109. SEC. 2. Whoever shall do any of the acts or things prohibited, or neglect or refuse to do any of the acts or things required by this act, or in any way violate any of the provisions, shall be deemed guilty of a misdemeanor, and shall be punished by a fine not less than twenty-five dollars nor more than one hundred dollars, or by imprisonment in the county jail for a period of not less than thirty nor more than ninety days, or by both such fine and imprisonment in the discretion of the court.

This act is ordered to take immediate effect.

PRESERVATIVES.

(Act No. 7, Public Acts, 1905.)

AN ACT in relation to the use of preservatives in food products.

The People of the State of Michigan enact:

110. SECTION 1. No person, firm or corporation shall manufacture, sell, offer for sale, expose for sale, or have in his possession with intent to sell, any food product containing benzoic acid or benzoate of sodium, or any other harmless preservative, unless each and every package containing the same shall, in the condition in which it is exposed for sale, be distinctly, conspicuously, and legibly branded, labeled or marked, in plain English letters, with the words "Prepared with" followed by the proper English name of the preservative used: Provided, That nothing in this act shall be construed to prohibit or regulate, by branding or otherwise, the use as a preservative of common salt, syrup, sugar, salt petre, spices, alcohol, vinegar, or wood smoke: And provided further, That the provisions of this act shall not apply to dairy products.

111. SEC. 2. Whoever shall do any of the acts or things prohibited, or neglect or refuse to do any of the acts or things required by this act, or in any way violate any of its provisions, shall be deemed guilty of a misdemeanor, and shall be punished by a fine not less than ten dollars nor more than one hundred dollars, or by imprisonment in the

county jail for a period of not more than ninety days, or by both such fine and imprisonment in the discretion of the court.

This act is ordered to take immediate effect.

MAPLE SUGAR AND SYRUP.

(Act No. 170, Public Acts, 1893.)

AN ACT to prohibit the adulteration of maple sugar, maple molasses and maple syrup.

The People of the State of Michigan enact:

112. (5007) SECTION 1. That it shall be unlawful for any person, dealer, firm, manufacturer or corporation to manufacture and sell, or offer for sale, any maple sugar, maple molasses or maple syrup that is in anywise adulterated with common sugar, beet sugar, glucose or any other foreign substance without distinctly marking, stamping or labeling the article or the package containing the same with the true and appropriate name of such article and the percentage in which common sugar, beet sugar, glucose or any other foreign substance enters into the composition of the same.

113. (5008) SEC. 2. Any person, dealer, firm, manufacturer or corporation who shall sell or offer for sale, and who shall falsely stamp or misrepresent or label any cans, jugs, jars, or packages containing maple molasses or maple syrup, and any person, dealer, firm, manufacturer or corporation who shall sell or offer for sale any maple sugar that is in anywise adulterated, who falsely misrepresents or labels or stamps the same, or knowingly permits such misrepresentation or false stamping or labeling, shall be deemed guilty of a misdemeanor and punished with a fine not less than fifty dollars, in case of vender, and in the case of manufacturers and those falsely or fraudulently stamping or labeling or misrepresenting such goods, shall be fined not less than five hundred dollars, nor more than one thousand dollars, and it shall be the duty of any board of health in this State, or food commissioner, should there be one, cognizant of any violation of this act to prosecute any person, dealer, firm, manufacturer, or corporation, which it has reason to believe has violated any of the provisions of this act, and after deducting the costs of trial and conviction the balance of fine recovered, one-half be placed in the township treasury wherein the conviction is made, the balance placed to the general fund of the county. Any (person) persons, dealer, firm, manufacturer or corporation who shall knowingly sell or offer for sale any cans, jugs, jars, or packages containing maple molasses, maple syrup, or maple sugar, that is in anywise adulterated, shall be deemed guilty of a misdemeanor and punished by a fine of not more than one hundred dollars, or by imprisonment in the county jail for a period not to exceed three months.

or by both such fine and imprisonment, at the discretion of the court.

114. (5009) SEC. 3. Any person, dealer, firm, manufacturer, or corporation, who shall falsely stamp or misrepresent or label any cans, jugs, jars, or packages, containing maple molasses, or maple syrup, or maple sugar, that is in anywise adulterated, or knowingly permits such (misrepresentation) misrepresentations or false stamping or labeling, shall be deemed guilty of a misdemeanor, and punished by a fine, not more than five hundred dollars, or by imprisonment in the county jail for a period of not more than one year, or by both such fine or imprisonment, in the discretion of the court.

ICE CREAM.

(Act No. 70, Public Acts, 1909.)

AN ACT to regulate the manufacture and sale of ice cream within the limits of the State of Michigan.

The People of the State of Michigan enact:

115. SECTION 1. No person, firm or corporation shall manufacture for sale, keep for sale, sell, barter, exchange or deal in ice cream which shall contain any substance other than milk, cream, eggs, sugar, and some neutral flavoring gelatin or vegetable gums or which contain other than the required amount of milk fat as hereinafter provided.

116. SEC. 2. No person, firm or corporation shall manufacture for sale, keep for sale, sell, barter, or deal in ice cream adulterated within the meaning of this act.

117. SEC. 3. Ice cream shall be deemed to be adulterated within the meaning of this act:

First, If it shall contain boric acid, formaldehyde, saccharin, or any other added substance or compound that is deleterious to health;

Second, If it shall contain salts of copper, iron oxide, ocreas or any coloring substance deleterious to health: Provided, That this paragraph shall not be construed to prohibit the use of harmless coloring matter in ice cream when not used for fraudulent purposes;

Third, If it shall contain any deleterious flavoring matter, or flavoring matter not true to name;

Fourth, If it be an imitation of, or offered for sale under the name of another article;

Fifth, If it contains less than ten per centum milk fat, except where fruit or nuts are used for the purpose of flavoring when it shall not contain less than eight per centum milk fat. Nothing in this act shall be construed to prohibit the use of not to exceed seven-tenths of one per centum of pure gelatin, gum tragacanth or other vegetable gums.

[Am. by Act No. 224, P. A. 1913.]

118. SEC. 4. The standard of ice cream in this state and for the purpose of this act is hereby declared to be a frozen product made from milk, cream, eggs and sugar with or without a natural flavoring and the gums mentioned in the preceding section and contains not less than ten per cent of milk fat. Fruit ice cream is a frozen product made from milk, cream, eggs and sugar and sound, clean, mature fruits, and contains not less than eight per cent of milk fat. Nut ice cream is a frozen product made from milk, cream, eggs, sugar and sound, non-rancid nuts, and contains not less than eight per cent of milk fat.

[Am. by Act No. 224, P. A. 1913.]

119. SEC. 5. It shall not be lawful for any person, firm or corporation to sell, offer for sale, expose for sale, or have in possession with intent to sell, any ice cream in any container which is falsely labeled or branded as to the name of the manufacturer thereof or to misrepresent in any way the place of manufacture of ice cream or the manufacturer thereof.

120. SEC. 6. Each person, firm or corporation engaged in the manufacture of ice cream as a business within this State, after this act shall take effect, shall file with the Dairy and Food Commissioner an application for a license accompanied with a fee of five dollars, and upon receipt of such application the Dairy and Food Commissioner shall issue to the person, firm or corporation making such application a license to manufacture ice cream, as provided in this act, which license shall run for one year from the date of the application, and shall be renewed annually thereafter.

The money so collected by the Dairy and Food Commissioner shall be paid into the State treasury and be used to help defray the expenses of the office of the Dairy and Food Commissioner in addition to the annual appropriation therefor: Provided, That this section shall not apply except in cities of more than three thousand inhabitants, by the last United States census, to any person, firm or corporation manufacturing and selling ice cream by the dish direct to the consumer.

121. SEC. 7. Any person, firm or corporation who shall violate any of the provisions of this act shall be deemed guilty of a misdemeanor and upon conviction shall be fined not less than twenty-five dollars nor more than one hundred dollars, or by imprisonment in the county jail for not less than thirty days nor more than ninety days, or by both such fine and imprisonment in the discretion of the court.

122. SEC. 8. The Dairy and Food Commissioner shall be charged with the enforcement of the provisions of this act. This act is ordered to take immediate effect.

MILL PRODUCTS.

(Act No. 208, Public Acts, 1909.)

AN ACT to establish uniform weights and measures of the various products of cereals in barrels or the fractional parts thereof when packed for sale or exposed for sale to firms or persons within this state, and to provide for the marking of the weight on packages of the products of such cereals.

The People of the State of Michigan enact:

123. SECTION 1. When mill products of wheat, corn, rye or buckwheat, known as flour, grits, meal or compounds of the same are placed or packed in barrels, fractional parts of a barrel or sacks to be sold or billed to any person or persons within this State, the standard weight or measure of a barrel or the fractional part thereof shall be as follows, viz:

One hundred ninety-six pounds for a barrel;

Ninety-eight pounds for one-half barrel;

Forty-nine pounds for one-quarter barrel;

Twenty-four and one-half pounds for one-eighth barrel;

Twelve and one-fourth pounds for one-sixteenth barrel;

Six and one-eighth pounds for one thirty-second barrel.

The full and correct weights as herein established shall be placed in said barrel or fractional part thereof by the manufacturer, company, dealer, person or persons filling the same, and the weights as herein established shall be the legal weights in this State for such packages when they are bought or sold, offered or exposed for sale, or in possession with intent to sell, or sold and delivered, ordered or billed.

124. SEC. 2. No person or persons shall sell, offer or expose for sale in this State by the barrel, or by the fractional parts of a barrel as herein established, any of the mill products specified in section one hereof, unless the barrel or fractional part of such barrel shall contain the full weight of such mill product as is provided for in section one hereof.

125. SEC. 3. Before any package containing the mill products or compounds of such mill products specified in section one of this act shall be sold or offered or exposed for sale in this State, the number of pounds contained therein shall be plainly printed or stamped on the face label in plain English letters and numbers not less than one-half inch high. When such packages are sold as one-half, one-quarter, one-eighth, one-sixteenth or one-thirty-second of a barrel they shall be so marked in addition to the number of pounds marked thereon as herein provided.

126. SEC. 4. No manufacturer, company, dealer or person shall abstract any part of the mill products from the standard package or fractional parts named in section one, and sell such package as a barrel or fractional part of a barrel as defined in section one.

127. SEC. 5. Any manufacturer, company, dealer, person or persons who shall knowingly sell, offer or expose for sale or for distribution in this State any package containing mill products of the cereals enumerated in section one which are stamped or labeled with a greater number of pounds than such package actually contains, or who shall put up or sell in this State any of the mill products of the above named cereals in a manner contrary to the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than twenty-five dollars nor more than five hundred dollars and the costs of prosecution, or by imprisonment in the county jail or the Michigan Reformatory at Ionia for not less than ninety days nor more than one year or by both such fine and imprisonment in the discretion of the court for each and every offense: Provided, however, That nothing in this act shall be construed to cover or affect sales or shipments made to any manufacturer, company, dealer, person or persons outside of this State and not intended for sale or shipment back into this State.

128. SEC. 6. It shall be the duty of the Dairy and Food Commissioner to investigate all complaints of violations of this act, and to take all steps necessary to its enforcement. It shall be the duty of all prosecuting officers of this State to prosecute to completion all suits brought under the provisions of this act upon complaint of said commissioner or any person.

129. SEC. 7. This act shall take effect and be operative from and after January first, nineteen hundred ten.

LINSEED OR FLAXSEED OIL.

(Act No. 110, Public Acts, 1909.)

AN ACT to prevent the adulteration of linseed oil or flaxseed oil and to prevent fraud in the sale thereof and in the sale of compounds thereof, and to repeal all acts in conflict herewith.

The People of the State of Michigan enact:

130. SECTION 1. No person, firm or corporation, by himself, his servant, or his agent, or as the servant or agent of any other person, firm or corporation, shall manufacture or mix for sale, sell, offer or expose for sale, or have in his possession with intent to sell in this State, under the name of raw linseed oil or raw flaxseed oil, any substance which is not wholly the product obtained from well cleaned flaxseed or linseed, and unless the aforesaid oil also fulfills the requirements of the nineteen hundred edition of the Pharmacopoeia of the United States, which follows:

1. Specific gravity 0.925 to 0.935 at 25 deg. C. (77 deg. F.) It does not congeal at temperatures above 20 deg. C (—4 deg. F.). It is solu-

ble in about ten parts of absolute alcohol and in all proportions in ether, chloroform, petroleum, benzine, carbon disulphide and oil of turpentine. It should not more than slightly redden blue litmus paper, previously moistened with alcohol (limit of free acid). The oil should be completely saponifiable with alcoholic potassium hydroxide T. S. and the resulting soap should be completely soluble in water without leaving an oily residue, (absence of mineral oils and rosin oils). If 2 CC. of the oil be warmed and shaken in a test tube with an equal volume of glacial acetic acid, and if to this mixture, after cooling, one drop of sulphuric acid be added, a greenish color should be produced. (A violet color under these circumstances indicates the presence of rosin oils.) Linseed oil saponified by alcoholic potassium hydroxide T. S. should show a saponification value of from 187 to 195. If 0.15 CC. of linseed oil be dissolved in 10 CC. of chloroform in a 250 CC. flask at 25 CC. of a mixture of equal volume of alcoholic iodine T. S. and alcoholic mercuric chloride T. S. added, and if, after standing for sixteen hours, protected from the light, 20 CC. potassium iodide T. S. be introduced and the mixture diluted with 50 CC. of water, on titrating the excess of iodine with tenth normal sodium thiosulphate V. S. an iodine value of not less than 170 should be obtained. No person, firm or corporation, by himself, his servant or his agent, or as the servant or agent of any other person, firm or corporation, shall manufacture or mix for sale, sell, offer or expose for sale or have in his possession with intent to sell in this State, any substance as boiled linseed oil or as boiled flaxseed oil, unless the same shall have been prepared by heating raw linseed oil, as defined above: Provided, That if drier is used in said boiled linseed oil or boiled flaxseed oil, the same shall have been prepared by incorporating said drier with raw linseed oil, as defined above, at a temperature of not less than 225 deg. Fahrenheit, and furthermore contains not less than 96 per cent of linseed oil; and for the purpose of this act it shall also be deemed a violation thereof if said boiled linseed oil prepared either with or without drier does not conform to the following requirements: 1. Its specific gravity at 60 deg. Fahrenheit must be not less than 0.935 and not greater than 0.945; 2. Its saponification value (Koettstorfer figure) must not be less than 186; 3. Its iodine number (Huebl's method) must be not less than 160; 4. Its acid value must not exceed 10; 5. The volatile matter expelled at 212 deg. Fahrenheit must not exceed one-half of one per cent; 6. No mineral oil shall be present and the amount of unsaponifiable matter as determined by standard methods shall not exceed 2.5 per cent; 7. The film left after flowing the oil over glass and allowing it to drain in a vertical or nearly vertical position must dry free from tackiness in not to exceed twenty hours, at a temperature of about 70 deg. Fahrenheit. Linseed oil or flaxseed oil which does not conform to the foregoing requirements shall be deemed to be adulterated within the meaning of this act.

131. SEC. 2. No person, firm or corporation, either by himself or another, shall sell, offer or expose for sale, or have in his possession with intent to sell in this State any linseed oil or flaxseed oil, except under its true name, and unless each barrel, keg or can of such oil has

plainly and durably painted, stamped, stenciled, labeled or marked thereon the true name of such oil in ordinary bold-faced capital letters, not less than five lines pica in size, together with the name and address of the manufacturer, jobber or dealer: Provided, That if the contents of the package be less than twenty-five gallons, the type shall not be less than two-lines pica in size. Proof that any person, firm or corporation has or had possession of any oil or compound which is adulterated or misbranded within the meaning of this act shall be prima facie evidence that the possession thereof is in violation of this act.

132. SEC. 3. Linseed oil compounds or flaxseed oil compounds designed to take the place of raw or boiled linseed oil or raw or boiled flaxseed oil as defined in section one of this act, whether sold, offered or exposed for sale under invented proprietary names or titles or not, shall bear conspicuously upon the containing vessel, in capital letters not less than five line pica in size, the word "Compound," followed immediately with the true distinctive names of the actual ingredients in the order of their greater preponderance, in the English language, in plain legible type of the same size, not less than two lines pica in size, in continuous list with no intervening matter of any kind, and shall also bear the name and address of the manufacturer, jobber or dealer. Any oil or compounds required to be branded by the provisions of this act and not complying with sections two and three shall be deemed to be misbranded within the meaning of this act.

133. SEC. 4. It is hereby made a duty of the State Dairy and Food Commissioner to enforce the provisions of this act.

134. SEC. 5. The State Dairy and Food Commissioner, his agents, assistants, inspectors, chemists or others appointed by him, shall have full rights of ingress and egress to the premises occupied by parties who manufacture, sell or deal in linseed oil or flaxseed oil, or linseed oil compounds or flaxseed oil compounds, and also shall have power and authority to open any tank, barrel, can or other vessel believed to contain such oil and inspect the contents thereof and to take therefrom samples for analysis. In case any sample so taken shall prove on analysis to be adulterated or misbranded in violation of the provisions of this act it shall be the duty of the State Dairy and Food Commissioner to proceed against the offender as herein provided. No person shall obstruct the State Dairy and Food Commissioner or any of his assistants by refusing entrance to any place which he desires to enter in the discharge of his official duty as provided in this act, nor shall any person refuse to deliver to him a sample of oil when same is requested and when the value thereof is tendered.

135. SEC. 6. Any person, firm or corporation convicted of violating any of the provisions of the foregoing act shall, for the first offense be punished by a fine in any sum not less than twenty-five dollars and not more than one hundred dollars or by imprisonment in the county jail not exceeding thirty days, or by both such fine and imprisonment in the discretion of the court; and for the second and each subsequent offense by a fine of not less than fifty dollars and not more than two hundred dollars or by imprisonment in the county jail not exceeding one year, or both in the discretion of the court; or the fine above may be sued

for and recovered before any justice of the peace or any court of competent jurisdiction, in the county where the offense shall have been committed, at the instance of the State Dairy and Food Commissioner or any other person in the name of the people of the State of Michigan as plaintiff and shall be recovered in an action of debt.

136. SEC. 7. All acts and parts of acts inconsistent with this act are hereby repealed.

DRUGS.

(Act No. 146, Public Acts, 1909.)

AN ACT to prohibit and prevent adulteration, misbranding, fraud and deception in the manufacture and sale of drugs and drug products in the State of Michigan, and to provide for the enforcement thereof.

The People of the State of Michigan enact:

137. SECTION 1. No person shall within this State manufacture for sale, have in his possession with intent to sell, offer or expose for sale, or sell, any drug or drug product which is adulterated or misbranded within the meaning of this act.

138. SEC. 2. The term "drug" as used in this act shall include all medicines and preparations recognized in the United States Pharmacopoeia or National Formulary for internal or external use, and any substance or mixture of substances or device intended to be used for the cure, mitigation or prevention of disease of either man or other animals.

[Am. by Act No. 152, P. A. 1915.]

139. SEC. 3. An article shall be deemed to be adulterated within the meaning of this act:

First, If, when it is sold under or by a name recognized in the United States Pharmacopoeia or National Formulary, it differs from the standard of strength, quality or purity as determined by the test laid down in the United States Pharmacopoeia or National Formulary official at the time of investigation: Provided, That no drug defined in the United States Pharmacopoeia or National Formulary shall be deemed to be adulterated under this provision if the standard of strength, quality or purity be plainly stated upon the principal label of the bottle, box or other container thereof, although the standard may differ from that determined by the test laid down in the United States Pharmacopoeia or National Formulary;

Second, If the strength or purity fall below the professed standard or quality under which it is sold.

[Am. by Act No. 152, P. A. 1915.]

140. SEC. 4. An article shall be deemed to be misbranded within the meaning of the act:

First, If it is an imitation of, or offered for sale under the name of another article;

Second, If the contents of the package as originally put up shall have been removed in whole or in part, and other contents shall have been placed in such package, or if the package fail to bear a statement on the label of the quantity or proportion of any alcohol, antipyrin, opium, morphine, codeine, heroin, cocaine, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate or acetanilide, or any derivative or preparation of any such substances, contained therein: Provided, That nothing herein shall be construed to apply to the dispensing of prescriptions written by regularly licensed practicing physicians, veterinary surgeons and dentists, and kept on file by the dispensing pharmacist, nor to such drugs as are recognized in the United States Pharmacopoeia and National Formulary, and which are sold under the name by which they are so recognized;

Third, If the package containing it or its label shall bear any statement, design or device regarding the ingredients, or the substances contained therein, which statement, design or device shall be false or misleading in any particular, and to any drug or drug product which is falsely branded as to the state, territory or country in which it is manufactured or produced;

Fourth, If its package or label shall bear or contain any statement, design or device regarding the curative or therapeutic effect of such articles or any of the ingredients or substances contained therein, which is false and fraudulent.

[Am. by Act No. 152, P. A. 1915.]

141. SEC. 5. The president of the board of pharmacy, the president of the State Board of Health and the Dairy and Food Commissioner shall jointly make such rules and regulations as may be necessary for the enforcement of this act.

142. SEC. 6. It shall be the duty of the Dairy and Food Commissioner to investigate all complaints of violations of this act and take all steps necessary to its enforcement; and to this end he shall appoint two drug inspectors who shall be registered pharmacists, and one competent analyst which inspectors and analyst shall hold office at the pleasure of said commissioner, and until others are appointed; and the said Dairy and Food Commissioner or his deputy and the said drug inspectors or any of them shall in a lawful manner inquire into the drug products which are manufactured or sold or exposed or offered for sale in this state, and may in a lawful manner procure samples of the same for analysis; and the said Dairy and Food Commissioner, his deputy, or said drug inspectors or any of them, shall have power to enter into any factory, store, salesroom, drug store or laboratory or place where he has reason to believe drug products are made, stored, sold or offered for sale, and open any cask, jar, bottle or package containing, or supposed to contain any drug product, and take therefrom samples for analysis. The person making such inspection shall take such sample of such article or product in the presence of at least one witness, and he shall, in the presence of said witness mark or seal such sample and

shall tender at the time of taking to the manufacturer or vendor of such product or to the person having the custody of the same the value thereof and a statement in writing for the taking of such sample. The said Dairy and Food Commissioner shall direct said analyst to make due and careful examination of such sample and report to him the result of such analysis and if the same is found to be adulterated or misbranded within the provisions of this act it shall be the duty of said commissioner his deputy or any drug inspector assigned to such duty to make complaint against the manufacturer or vendor thereof in the proper county and furnish all evidence thereof to obtain a conviction of the offense charged, and in no case shall the Dairy and Food Commissioner or drug inspector making such complaint be required to furnish security for costs in any action instituted by him having for its object the enforcement of this act: Provided, Nothing herein contained shall be held to prohibit or prevent other inspectors or chemists connected with the office of the Dairy and Food Commissioner from performing any of the duties herein imposed upon the said drug inspectors and analyst, whenever in the opinion of said Dairy and Food Commissioner the work of his office can be expedited thereby.

143. SEC. 7. In construing and enforcing the provisions of this act, the act, omission or failure of any officer, agent or other person acting for or employed by any corporation, company, society or association within the scope of his employment or office, shall, in every case, be also deemed to be the act, omission or failure of such corporation, company, society or association, as well as that of the person: Provided, That no dealer shall be prosecuted under the provisions of this act when he can establish a guaranty in accordance with the provisions of the national food and drug act, June thirtieth, nineteen hundred six, or a guaranty signed by the wholesaler, jobber, manufacturer or other parties residing in this State, from whom he purchased such article, to the effect that the same is not adulterated nor misbranded within the meaning of this act. Said guaranty to afford protection shall contain the name and address of the party or parties making the sale of such article to such dealer, and in such case, if such guaranty was given in this State, said party or parties shall be amenable to the prosecution, fines and other penalties which would attach in due course to the dealer under the provisions of this act: Provided, however, That said guaranty shall not afford protection to the vendor in any case if said product is adulterated or misbranded within the meaning of this act, and if said vendor shall have been previously notified in writing by the Dairy and Food Commissioner to that effect: Provided further, That in no case shall the Dairy and Food Commissioner serve such notice upon any vendor of any such product until said Dairy and Food Commissioner shall have notified the manufacturer or jobber of any such product of the findings of the State Analyst with reference to such product; such notification to such manufacturer or jobber shall be in writing and shall be mailed ten days previous to any notice sent to any vendor in accordance with this section.

144. SEC. 8. Nothing in this act shall affect any drug product manufactured in this State for export to any foreign country or for sale

in any other state, when such drug product is not adulterated or misbranded within the meaning of the laws of such foreign country or state; but if said article shall be in fact sold or offered for sale for use or consumption within this State, then such article shall not be exempt from the operation of any of the provisions of this act.

145. SEC. 9. It shall be the duty of each prosecuting attorney, when called upon by the said Dairy and Food Commissioner, or by any person by him authorized as aforesaid, to render any legal assistance in his power in proceedings under the provisions of this act or any subsequent act relative to the adulteration or misbranding of drug products.

146. SEC. 10. Whoever shall do any of the acts or things prohibited, or wilfully neglect or refuse to do any of the acts or things enjoined by this act, or in any way violate any of its provisions, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of not less than twenty-five nor more than five hundred dollars, or by imprisonment in the county jail for a period of not more than ninety days, or by both fine and imprisonment in the discretion of the court.

147. SEC. 11. The sum of six thousand dollars is hereby appropriated for the fiscal year ending June thirtieth, nineteen hundred eleven, and for each fiscal year thereafter there is hereby appropriated the sum of six thousand dollars. Out of the amounts appropriated by this act shall be paid all salaries and expenses provided for herein.

TURPENTINE.

(Act No. 175, Public Acts, 1911.)

AN ACT regulating the sale of turpentine and providing penalties for the violation of this act.

The People of the State of Michigan enact:

148. SECTION 1. No person, firm or corporation shall manufacture, mix for sale, sell or offer for sale for other than medical purposes, under the name of turpentine or under a name composed of a part or parts of the word turpentine, or spirits of turpentine, any article which is not wholly distilled from resin, turpentine gum or scrape from pine trees and unmixed and unadulterated with oil, benzine or other foreign substance of any kind whatsoever, unless the package containing the same shall be stenciled or marked with letters not less than one inch square and one-fourth inch apart "adulterated turpentine," except turpentine produced from turpentine gum extracted wholly from pine wood, which turpentine is known as "wood turpentine" must be stenciled or marked "wood turpentine" with letters not less than one inch square and one-fourth inch apart. When such wood turpentine is mixed and adulterated with oil, benzine or other foreign substance

of any kind whatsoever, the container shall be stenciled or marked "adulterated wood turpentine" with letters not less than one inch square and one-fourth inch apart. When wood turpentine is mixed with turpentine distilled from resin, turpentine gum, or scrape from pine trees, in any quantity whatsoever, the container shall be stenciled or marked "wood turpentine" with letters not less than one inch square and one-fourth inch apart: Provided, That if the contents of the package be less than twenty-five gallons, the type shall not be less than two lines pica in size. Nothing herein contained shall be construed to prohibit the manufacture or sale of any compound or imitation providing the container shall be plainly marked and the purchaser notified as aforesaid.

[Am. by Act No. 372, P. A. 1913.]

149. SEC. 2. The Dairy and Food Commissioner of Michigan shall enforce the provisions of this chapter and the penal statutes relating thereto, and such commissioner, his assistants, experts, chemists and agents shall have access and ingress to the places of business, stores and buildings used for the sale of turpentine, and may open any package, can or jar or other receptacle containing any turpentine that may be manufactured, sold or offered for sale in violation of this statute. The inspectors, assistants or chemists appointed by such commissioner shall perform like duties and have like authority under this chapter and the penal statutes relating thereto as is provided by law in other cases. Such commissioner shall publish bulletins from time to time giving the results of the inspections and analyses with such information as he deems suitable.

150. SEC. 3. Whosoever violates any provision of law relating to the labeling, marking or stenciling of turpentine or wood turpentine by manufacturers or distributors thereof, shall be fined not more than fifty dollars for the first offense, and for each subsequent offense shall be fined not less than fifty dollars nor more than one hundred dollars, or imprisoned not less than thirty days nor more than one hundred days or both.

BABCOCK TEST.

(Act No. 280, Public Acts, 1907.)

AN ACT to regulate the sampling and testing of milk and cream and the use of the Babcock test and to make the violation of any provision hereof a misdemeanor.

The People of the State of Michigan enact:

151. SECTION 1. In taking samples of milk or cream from any milk can, cream can or any container of milk or cream, the contents of such milk can, cream can, or container of milk and cream shall first be

thoroughly mixed either by stirring or otherwise and the sample shall be taken immediately after mixing, or by any other method which gives a representative average sample of the contents, and it is hereby made a misdemeanor to take samples by any method which does not give a representative average sample where milk or cream is bought or sold, and where the value of said milk or cream is determined by the butter fat contained in the same by the Babcock test.

152. SEC. 2. In the use of the Babcock test the term "standard Babcock testing glassware" shall apply to glassware complying with the following specifications:

(a) Standard Milk Test Bottles.

Graduation.—The total per cent graduation shall be eight per cent. The graduated portion of the neck shall have a length of not less than sixty-three five-tenths millimeters (two and one-half inches). The graduation shall represent whole per cent, five-tenths per cent, and tenths per cent. The tenths per cent graduations shall not be less than three millimeters in length, the five-tenths per cent graduations shall be one millimeter longer than the tenths per cent graduations, projecting one millimeter to the left; the whole per cent graduations shall extend at least one-half way around the neck to the right and projecting two millimeters to the left of the tenths per cent graduations. Each per cent graduation shall be numbered, the number being placed on the left of the scale. The arrow at any point of the scale shall not exceed one-tenth per cent.

Neck.—The neck shall be cylindrical and the cylindrical shape shall extend for at least nine millimeters below the lowest and above the highest graduation mark. The top of the neck shall be flared to a diameter of not less than ten millimeters.

Bulb.—The capacity of the bulb up to the junction of the neck shall not be less than forty-five cubic centimeters. The shape of the bulb may be either cylindrical or conical with the smallest diameter at the bottom. If cylindrical, the outside diameter shall be between thirty-four and thirty-six millimeters; if conical, the outside diameter of the base shall be between thirty-one and thirty-three millimeters, and the maximum diameter between thirty-five and thirty-seven millimeters.

The charge of the bottle shall be eighteen grams.

The total height of the bottle shall be between one hundred fifty and one hundred sixty-five millimeters (five and seven-eighths and six and one-half inches).

(b) Standard Cream Test Bottles.

Two types of bottles shall be accepted as standard cream test bottles, a fifty per cent nine gram short-neck bottle and a fifty per cent nine gram long-neck bottle.

Fifty per cent nine gram short-neck bottles. Graduation.—The total per cent graduation shall be fifty. The graduated portion of the neck shall have a length of not less than sixty-three five-tenths millimeters (two and one-half inches). The graduation shall represent five per cent, one per cent and five-tenths per cent. The five per cent graduations shall extend at least one-half way around the neck of the bottle (to the right). The five per cent graduations shall have a length in-

intermediate between the five per cent and the five-tenths per cent graduations. Each five per cent graduation shall be numbered, the number being placed on the left of the scale. The arrow at any point of the scale shall not exceed five-tenths per cent.

Neck.—The neck shall be cylindrical and the cylindrical shape shall extend at least nine millimeters below the lowest and nine millimeters above the highest graduation mark. The top of the neck shall be flared to a diameter of not less than ten millimeters.

Bulb.—The capacity of the bulb up to the junction of the neck shall not be less than forty-five cubic centimeters. The shape of the bulb may be either cylindrical or conical with the smallest diameter at the bottom. If cylindrical, the outside diameter of the base shall be between thirty-one and thirty-three millimeters and the maximum diameter between thirty-five and thirty-seven millimeters.

The charge of the bottle shall be nine grams. All bottles shall bear on top of the neck above the graduations, in plainly legible characters, a mark defining the weight of the charge to be used (nine grams).

The total height of the bottle shall be one hundred fifty and one hundred sixty-five millimeters (five and seven-eighths and six and one-half inches) same as standard milk test bottles.

Fifty per cent nine gram long-neck bottles.—The same specifications in every detail as specified for the fifty per cent nine gram short-neck bottle shall apply for the long-neck bottle with the exception, however, that the total height of this bottle shall be between two hundred ten and two hundred thirty-five millimeters (eight and one-half and eight and seven-eighths inches) and that the total length of the graduation shall be not less than one hundred twenty millimeters.

The Standard Babcock Pipette.

Total length of pipette shall be not more than three hundred thirty millimeters (thirteen and one-fourth inches). Outside diameter of suction tube six to eight millimeters. Length of suction tube one hundred twenty millimeters. Outside diameter tube one hundred to one hundred twenty millimeters. Distance of graduation mark above bulb thirty to sixty millimeters. Nozzle straight. Delivery seventeen six-tenths cubic centimeters of water at twenty degrees C. in five to eight seconds.

All butter-fat and cream scales used for the purpose of determining the value or per cent of butter-fat content of milk or cream by the Babcock test shall be subject to the following specifications:

1. The scale shall be provided with a graduated face of at least ten divisions over which the pointer shall play.
2. The pointer must reach to the graduated divisions and shall terminate in a fine point to enable the readings to be made clearly and distinctly.
3. The clear interval between the divisions on the graduated face shall not be less than five one-hundredths inch.
4. All scales whose weight indications are changed by an amount greater than one-half the tolerance allowed, when set in any position on a surface making an angle of three degrees or approximately five per cent with the horizontal, shall be equipped with leveling screws and

a device which will indicate when the scale is level: Provided, however, That the scale shall be rebalanced at zero each time its position is altered during the test.

5. The addition of one-half grain to the scale when loaded to capacity shall cause a movement of the pointer at least equal to one division on the graduated face.

6. The sensibility reciprocal and tolerance of cream test and butter-fat test scales shall be one half-grain (thirty milligrams). Every person, firm, company, association, corporation or agent thereof buying and paying for milk or cream on the basis of the amount of butter-fat contained therein as determined by the Babcock test shall use standard Babcock test bottles, pipettes and accurate weights and scales as defined in this act.

[Am. by Act No. 266, 1915.]

153. SEC. 3. It shall be unlawful for the owner, manager, agent or any employee of a cheese factory, creamery, condensed milk factory or milk depot or other place where milk or cream is tested for quality or value to falsely manipulate or under-read or over-read the Babcock test, or make settlements on any other basis than the correct reading of the Babcock test or any other contrivance used for determining the quality or value of milk or cream where the value of said milk or cream is determined by the per cent of butter fat contained in the same or to make any false determination by the Babcock test or otherwise.

154. SEC. 4. Whoever shall violate any of the provisions of this act shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than ten dollars nor more than fifty dollars for each and every offense or be imprisoned in the county jail not less than ten days nor more than thirty days.

SAUSAGE.

(Act No. 151, Public Acts, 1913.)

AN ACT providing for the protection of the public health and the prevention of fraud and deception, by prohibiting the sale, the offering for sale or exposing for sale or the having in possession with intent to sell, of adulterated or deleterious sausage; defining sausage; and prescribing the penalty for the violation hereof.

The People of the State of Michigan enact:

155. SECTION 1. It shall be unlawful for any person or persons, by himself, herself or themselves, or by his, her or their agents, servants or employees, to sell, offer for sale, expose for sale, or have in possession with intent to sell, sausage that is adulterated within the meaning of this act. Sausage when used in this act shall be deemed to include Bologna, Wiene-wurst and Frankforts.

156. SEC. 2. For the purpose of this act, sausage or sausage meat shall be held to be a comminuted meat from neat cattle or swine, or a mixture of such meats, either fresh, salted, pickled or smoked, with added salt and spices, and with or without the addition of edible animal fat, blood and sugar, or subsequent smoking. It shall contain no larger amount of water than the meats from which it is prepared contain when in their fresh condition.

157. SEC. 3. For the purpose of this act, sausage shall be deemed to be adulterated:

First, If it contains added water in excess of the quantity required to bring the amount up to that which the meats from which it is prepared contain immediately after slaughter;

Second, If it contains any cereal or vegetable flour;

Third, If it contains any coal-tar dye, boric acid or borates, sulphites, sulphur dioxide, sulphurous acid, or any other substances injurious or deleterious to health;

Fourth, If it contains any diseased, contaminated, filthy or decomposed substance; or is manufactured, in whole or in part, from a diseased, contaminated, filthy or decomposed substance, or a substance produced, stored, transported or kept in a way or manner that would render the article diseased, contaminated or unwholesome; or if it is any product of a diseased animal, or the product of any animal which has died otherwise than by slaughter. Nothing in this act shall be construed as prohibiting the sale of sausage which when properly labeled shall conform to the following standard: Sausage shall not contain cereal in excess of two per cent. When cereal is added its presence shall be noted on the label or on the product. That water or ice shall not be added to it except for the purpose of facilitating grinding, chopping and mixing, in which case the added water or ice shall not exceed three per cent except as provided in the following paragraph. Sausages of the class which are cooked or smoked, such as Frankfort style, Vienna style and Bologna style, may contain added water in excess of three per cent, but not in excess of amount sufficient to make the sausage palatable. When water in excess of three per cent is added to this class of sausage, the statement "Sausage, water and cereal" shall appear on the label or on the product, but when no cereal is added, the addition of water need not be stated.

158. SEC. 4. Any person who shall violate any of the provisions of this act shall be guilty of a misdemeanor, and upon conviction thereof shall be sentenced to pay a fine of not less than one hundred dollars, nor more than two hundred dollars, or to undergo an imprisonment of not less than thirty days, nor more than sixty days, or both or either, in the discretion of the court.

159. SEC. 5. The dairy and food commissioner shall be charged with the enforcement of the provisions of this act.

WEIGHTS AND MEASURES.

(Act No. 168, Public Acts, 1913.)

AN ACT to provide for a state superintendent of weights and measures, state, county and city sealers and inspection of weights and measures, prescribing their powers and duties, providing penalties for fraud and deception in the use of false weights and measures and confiscation thereof, and repealing sections four thousand eight hundred eighty-two to four thousand eight hundred ninety-seven inclusive of the Compiled Laws of eighteen hundred ninety-seven.

The People of the State of Michigan enact:

160. SECTION 1. The weights and measures received from the United States under a resolution of congress approved June fourteen, eighteen hundred thirty-six and such new weights and measures as shall be received from the United States as standard weights and measures in addition thereto or in renewal thereof, and such as shall be supplied by the state in conformity therewith and certified by the national bureau of standards, shall be the state standards, by which all county and municipal standards of weights and measures shall be tried, proved and sealed.

161. SEC. 2. The state dairy and food commissioner by virtue of his office shall be state superintendent of weights and measures during his term of office. His deputy shall be deputy superintendent of weights and measures and all inspectors appointed by the dairy and food commissioner shall be state inspectors and sealers of weights and measures.

162. SEC. 3. The superintendent of weights and measures shall take charge of the standards adopted by this article as the standards of the state, and cause them to be kept in a safe and suitable place in the office of the superintendent from which they shall not be removed except for repairs or for certification and he shall take all other necessary precautions for their safe keeping. He shall maintain the state standards in good order and shall submit them at least once in ten years to the national bureau of standards for certification. He shall at least once in five years try and prove by the state standards all weights, measures and other apparatus which may belong to any county or city, and shall seal such when found to be accurate stamping on them the letter "C" and the last two figures of the year with seals which he shall have and keep for that purpose. He shall have and keep a general supervision of the weights, measures and weighing and measuring devices offered for sale, sold, or in use in the state. He shall, upon the written request of any citizen, firm, corporation or educational institution in the state test or calibrate weights, measures, weighing or measuring devices, and instruments or apparatus used as standards in the state. He, or his deputy, or inspectors, by his direction, shall at least once annually test all scales, weights, and measures used in checking the receipts and disbursements of supplies in every institution for the maintenance of

which moneys are appropriated by the legislature, and he shall report in writing his finding to the supervisory board and to the executive officer of the institution concerned, and at the request of such board or executive officer the superintendent of weights and measures shall appoint in writing one or more employes then in the actual service of each institution, who shall act as special deputies without extra compensation for the purpose of checking the receipts and disbursements of supplies. He shall keep a complete record of standards, balances and other apparatus belonging to the state and take a receipt for same from his successor in office. He shall annually on the first day of July make to the governor a report of the work done by his office. The state superintendent or his deputy, or inspectors, at his direction, shall inspect all standards and apparatus used by the counties and cities at least once in five years and shall keep a record of the same. He, or his deputy, or inspectors, at his direction shall at least once in five years visit the various cities and counties of the state in order to inspect the work of the local sealers, and in the performance of such duties, he may inspect the weights, measures, balances, or any other weighing appliance of any citizen, firm, or corporation, and shall have the same power as the local sealer of weights and measures. The superintendent shall issue from time to time, regulations for the guidance of city and county sealers, and the said regulations shall govern the procedure to be followed by the aforesaid officers in the discharge of their duties.

163. SEC. 4. The board of supervisors of each county and the commissioner or common council of each city who may in their discretion appoint a sealer under this act, shall procure at the expense of the county or city, and shall keep at all times, a complete set of weights and measures and other apparatus of such material and construction as said superintendent of weights and measures may direct. All such weights, measures, and other apparatus having been tried and accurately proven by him, shall be sealed and certified to by the state superintendent as hereinbefore provided; and shall be then deposited with and preserved by the county or city sealer as public standards for such county or city.

164. SEC. 5. The board of supervisors of each county may in its discretion appoint a county sealer of weights and measures in each county for a term of two years. He shall be paid a salary to be determined by said board, and no fee shall be charged by him or by the county for the inspection, testing, or sealing of weights, measures, or weighing or measuring devices; where not otherwise provided by law, the county sealer shall have the power within his county, and the state superintendent, his deputies and inspectors, within the state, to inspect, test, try, and ascertain if they are correct, all weights, scales, beams, measures of every kind, instruments or mechanical devices for measuring and tools, appliances and accessories connected with any and all such instruments or measures kept, offered, or exposed for sale, sold or used or employed within the county by any proprietor, agent, lessee, or employe in proving the size, quantity, extent, area, or measurement of quantities, things, produce, articles for distribution or consumption offered or submitted by such person or persons for sale,

hire, or award; and they shall have the power to and shall from time to time weigh or measure packages or amounts of commodities of whatsoever kind kept for the purpose of sale, offered for sale, or sold or in the process of delivery, in order to determine whether the same contains the amount represented, and whether they be offered for sale or sold in a manner in accordance with law. The county sealer shall at least once each year, and as much oftener as he may deem necessary, see that the weights, measures, and all apparatus used in the county are correct. The county and state inspectors may for the purpose above mentioned and in the general performance of their official duties enter or go in upon, and without formal warrant, any stand, place, building, or premises, or stop any vendor, peddler, junk dealer, coal wagon, ice wagon, delivery wagon, or any dealer whatsoever and require him, if necessary, to proceed to some place which the sealer may specify, for the purpose of making the proper tests. Whenever the county sealer or state inspectors find a violation of the statute relating to weights and measures, they shall cause the violator to be prosecuted. Whenever any sealer or inspector compares weights, measures, or weighing and measuring instruments and finds that they correspond, or causes them to correspond, with the standards in his possession, he shall seal or mark such weights, measures, or weighing or measuring instruments with appropriate devices to be approved by the state superintendent of weights and measures. The county sealer shall keep a complete record of all of his official acts and shall make an annual report to the board of supervisors and an annual report duly sworn to on the first day of July to the state superintendent of weights and measures on blanks to be furnished by the superintendent. The county sealer of weights and measures shall forthwith on his appointment give a bond in the penal sum of one thousand dollars, with sureties to be approved by the appointing power for the faithful performance of the duties of his office: Provided, however, That nothing in the above shall be construed to prevent two or more counties from combining the whole or any part of their districts as may be agreed upon by the board of supervisors with one set of standards and one sealer, upon the written consent of the state superintendent of weights and measures. A county sealer appointed in pursuance of such an agreement for such combination, shall, subject to the terms of his appointment, have the same authority, jurisdiction, and duties as if he had been appointed by each of the authorities who are party to the agreement.

165. SEC. 6. Any incorporated city in this state may in its discretion appoint a city sealer of weights and measures under this act. He shall be appointed by the mayor, by and with the advice and consent of the common council. He shall perform in said city the duties and have like powers as the county sealer in the county. In those cities in which no sealer is appointed as above, the county sealer of the county, if there be one, shall perform in said cities the duties and have like powers as in the county: Provided, however, That nothing in the above shall be construed to prevent any county and a city situated therein from combining the whole or any part of their districts as may be agreed upon with one sealer, subject to the written approval of the state superin-

tendent of weights and measures. A sealer appointed in pursuance of an agreement for such combination shall, subject to the terms of his appointment, have the same authority, jurisdiction, and duties as if he had been appointed by each of the authorities who are parties to the agreement.

166. SEC. 7. Any person who by himself or by his servant or agent or as the servant or the agent of another shall offer or expose for sale, sell, or use or retain in his possession, a false weight or measure or weighing or measuring device or any weight or measure or weighing or measuring device which has not been sealed by the sealer of weights and measures within five years, in the buying or selling of any commodity or thing or for hire or reward; or who shall dispose of any condemned weight, measure or weighing or measuring device contrary to law or remove any tags placed thereon by the sealer of weights and measures; or any person who by himself or by his servant or agent, or as the servant or agent of another, shall knowingly sell or offer or expose for sale less than the quantity he represents, or sell or offer or expose for sale any such commodity in a manner contrary to law; or any person who by himself or by his servant or agent, or as the servant or agent of another, shall sell or offer for sale or have in his possession for the purpose of selling any device or instrument to be used to, or calculated, to falsify any weight or measure, shall be guilty of a misdemeanor, and shall be punished by a fine of not less than twenty dollars nor more than one hundred dollars or by imprisonment for not more than three months or by both such fine and imprisonment upon first conviction; but upon a second or subsequent conviction he shall be punished by a fine of not less than fifty dollars nor more than five hundred dollars or by imprisonment in the county jail for not more than one year or by both such fine and imprisonment.

167. SEC. 8. The superintendent of weights and measures, his deputy, inspectors, and the county and city sealers of weights and measures are hereby made special policemen, and are authorized to seize, for use as evidence and without formal warrant any false or unsealed weight, measure or weighing or measuring device or package or amounts of commodities, found to be used, retained or offered or exposed for sale or sold in violation of law.

168. SEC. 9. Any person who shall hinder or obstruct in any way, the superintendent of weights and measures, his deputy, or inspectors, or any county or city sealer, in the performance of his official duties shall be guilty of a misdemeanor, and shall be punished upon conviction thereof, in any court of competent jurisdiction, by a fine of not less than two nor more than two hundred dollars, or by imprisonment in the county jail for not more than ninety days or by both such fine and imprisonment.

169. SEC. 10. Any person who shall impersonate in any way the superintendent of weights and measures, his deputies, inspectors, or any county or city sealer, by use of his seal or otherwise, shall be guilty of a misdemeanor and shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars, or by imprisonment

in the jounty jail for not more than ninety days or by both such fine and imprisonment.

170. Sec. 11. Sections four thousand eight hundred eighty-two, four thousand eight hundred eighty-three, four thousand eight hundred eighty-four, four thousand eight hundred eighty-five, four thousand eight hundred eighty-six, four thousand eight hundred eighty-seven, four thousand eight hundred eighty-eight, four thousand eight hundred eighty-nine, four thousand eight hundred ninety, four thousand eight hundred ninety-one, four thousand eight hundred ninety-two, four thousand eight hundred ninety-three, four thousand eight hundred ninety-four, four thousand eight hundred ninety-five, four thousand eight hundred ninety-six and four thousand eight hundred ninety-seven, of the Compiled Laws of eighteen hundred ninety-seven, relative to weights and measures, are hereby repealed.

AN ACT to provide for the weight per bushel, of certain grain, dried fruit, coal, vegetables and products.

The People of the State of Michigan enact:

171. (C. L., 4900) SECTION 1. That whenever wheat, rye, shelled corn, corn on the cob, corn meal, oats, buckwheat, beans, clover seed, timothy seed, flax seed, hemp seed, millet seed, blue grass seed, red top seed, barley, dried apples, dried peaches, potatoes, potatoes (sweet), onions, turnips, peas, cranberries, dried plums, castor beans, salt, mineral coal, Hungarian grass seed, orchard grass seed, osage orange seed, shall be sold by the bushel, and no special agreement as to the measure or weight thereof shall be made by the parties, the measure thereof shall be ascertained by weight and shall be computed as follows, viz.:

Sixty pounds for a bushel of wheat;
Fifty-six pounds for a bushel of rye;
Fifty-six pounds for a bushel of shelled corn;
Seventy pounds for a bushel of corn on the cob;
Fifty pounds for a bushel of corn meal;
Thirty-two pounds for a bushel of oats;
Forty-eight pounds for a bushel of buckwheat;
Sixty pounds for a bushel of beans;
Sixty pounds for a bushel of clover seed;
Forty-five pounds for a bushel of timothy seed;
Fifty-six pounds for a bushel of flax seed;
Forty-four pounds for a bushel of hemp seed;
Fifty pounds for a bushel of Millet or Hungarian grass seed;
Fourteen pounds for a bushel of blue grass seed;
Fourteen pounds for a bushel of red top seed;
Forty-eight pounds for a bushel of barley;

Twenty-two pounds for a bushel of dried apples;
Twenty-eight pounds for a bushel of dried peaches;
Sixty pounds for a bushel of potatoes.
Fifty-six pounds for a bushel of sweet potatoes;
Fifty-four pounds for a bushel of onions;
Fifty-eight pounds for a bushel of turnips;
Sixty pounds for a bushel of peas;
Forty pounds for a bushel of cranberries;
Twenty-eight pounds for a bushel of dried plums;
Forty-six pounds for a bushel of castor beans;
Fifty-six pounds for a bushel of Michigan salt;
Eighty pounds for a bushel of mineral coal;
Fourteen pounds for a bushel of orchard grass seed;
Thirty-three pounds for a bushel of osage orange seed.

UNLAWFUL DISCRIMINATION.

(Act No. 103, Public Acts, 1913.)

AN ACT to prevent unlawful discrimination in the purchase of poultry, eggs, milk, cream and butter-fat, and to provide a punishment for the same.

The People of the State of Michigan enact:

172. SECTION 1. Any person, firm, copartnership or corporation engaged in the business of buying poultry, eggs, milk, cream or butter-fat for the purpose of manufacture, who shall with the intention of creating a monopoly or destroying the business of a competitor, discriminate between different sections, localities, communities or cities of this State by purchasing such commodity at a higher price or rate in one locality than is paid for the same commodity by said person, firm, copartnership or corporation in any other locality, after making due allowance for the difference, if any, in the actual cost of transportation from the locality of purchase to the locality of manufacture, shall be deemed guilty of unfair discrimination, and upon conviction thereof shall be punished by a fine not exceeding five hundred dollars or by imprisonment in the county jail not to exceed six months.

COMMISSION MERCHANTS.

(Act No. 184, Public Acts, 1913.)

AN ACT to regulate the business of selling farm products on commission, providing all commission merchants dealing in farm products shall be licensed, to provide against and punish fraud and deception in the sale of farm products on commission, and defining the duties of the State dairy and food commissioner relative thereto.

The People of the State of Michigan enact:

173. SECTION 1. As used in this article:

1. The term "commission merchant" shall include every person, firm, association and corporation, licensed under this article to receive, sell or offer for sale on commission within this State any kind of farm produce.

2. The term "farm produce" shall include all agricultural, horticultural, vegetable and fruit products of the soil, and meats, poultry, eggs, dairy products, nuts and honey, but shall not include timber products.

174. SEC. 2. On and after October first, nineteen hundred thirteen, no person, firm, association or corporation, whose principal place of business shall be located in any city in this State, shall receive, sell or offer for sale on commission within this State any kind of farm produce, without a license as provided in this article. Every person, firm, association and corporation in this State receiving farm produce for sale on commission shall annually on or before October first, file an application with the State dairy and food commissioner for a license to do a commission business in farm produce. Such application shall state the kind or kinds of produce which the applicant proposes to handle, the full name of the person or corporation applying for such license, and if the applicant be a firm or association, the full name of each member of the firm or association, the city and street number at which the business is to be conducted, and such other facts as the State dairy and food commissioner shall prescribe. Such applicant shall further satisfy the State dairy and food commissioner of his or its character, responsibility and good faith in seeking to carry on a commission business. The State dairy and food commissioner shall thereupon issue to such applicant, on payment of fifteen dollars, in cities of less than twenty thousand population, and twenty-five dollars, in cities of more than twenty thousand population, a license entitling the applicant to conduct the business of receiving and selling farm produce on commission at the place named in the application until the tenth day of October next following. Such license shall not be issued, however, to any applicant if during the preceding year a complaint from any consignor of farm produce for sale on commission shall have been filed with the State dairy and food commissioner against such applicant for any of the grounds specified in section four hereof, and such complaint shall have been established as true and just to the satisfaction of the com-

missioner after such complaint shall have been investigated by the commissioner in the manner provided by section three of this act.

175. SEC. 3. The commissioner and his assistants shall have power to investigate, upon the complaint of an interested person, or of his own motion, the record of any person, firm or corporation applying for a license, or any transaction involving the solicitation, receipt, transportation, sale or attempted sale of farm produce on a commission basis, including the making of charges in selling, carting, or other services, the failure to make proper and true accounts and settlements at prompt and regular intervals, the making of false statements as to condition, quality or quantity of goods received or while in storage, the making of false statements as to market conditions, or the failure to make payment for goods received or other alleged injurious transactions; and for such purpose may examine the ledgers, books of account, memoranda or other documents of any commission merchant and may take testimony therein under oath; but information relating to the general business of any such person, contained in such investigation and not relating to the immediate purpose thereof shall be deemed of a confidential nature by the commissioner, his assistants and employees. When a complaint is filed with the commissioner, he shall attempt to secure an explanation or adjustment; failing this, within ten days he shall cause a copy thereof, together with a notice of a time and place for a hearing on such complaint, to be served personally, or by mail, upon such commission merchants. If served by mail such complaint and notice shall be directed to such commission merchant at his place of business and the postage prepaid thereon. Such service shall be made at least seven days before the hearing. At the time and place appointed for such hearing, which shall be within the county where the commission merchant is licensed to do business, the commissioner or his assistants shall hear the parties to such complaint, shall have power to administer an oath, and shall enter in the office of the State dairy and food commissioner a decision either dismissing such complaint or specifying the fact which he deemed established on such hearing.

176. SEC. 4. The State dairy and food commissioner may decline to grant a license or may revoke a license already granted, where he is satisfied of the existence of the following cases or either of them:

1. Where false charges have been imposed for handling or services, or charges other than as by a schedule agreed on by the parties, or other than those customary in the trade;

2. Where there has been a failure to account promptly and properly or to make settlements with intent to defraud;

3. Where there have been false statements as to condition, quality or quantity of goods received or held for sale on commission;

4. Where there have been false or misleading statements as to market condition with intent to deceive;

5. Where there have been combinations to fix prices below the market level;

6. Where there has been a continual course of dealings of such nature as to satisfy the commissioner of inability of the commission mer-

chant to properly conduct the business, or of an intent to deceive or defraud customers;

7. Where the commission merchant directly or indirectly purchases the goods for his own account without prior authority therefor, or without notifying the consignor thereof.

177. SEC. 5. The action of the commissioner in refusing to grant a license, or in revoking a license granted under this act, shall be subject to review by a writ of certiorari, and if such proceedings are begun; until the final determination of certiorari proceedings and all appeals therefrom, the license of such commission merchant shall be deemed to be in full force and effect, or if such license shall have been refused, such commission merchant shall not be deemed to have violated the provisions of this act, prohibiting the transaction of such business without a license, provided the fee for such license shall have been paid.

178. SEC. 6. The dairy and food commissioner shall publish in pamphlet form as often as he thinks is necessary, a list of all the licensed commission merchants.

179. SEC. 7. The funds received for the license issued under section two of this act shall be paid into the State treasury for the use and benefit of the State dairy and food department.

180. SEC. 8. If any shipper of farm produce to a commission merchant be dissatisfied with any statement relative to the sale of such shipment, he may apply to the State dairy and food commissioner, in writing, within sixty days of making such shipment, for an investigation. The State dairy and food commissioner shall treat such application as a complaint, and shall cause a full investigation of the transaction complained of to be made either by himself, or one of his assistants in the manner provided by section five of this act.

181. SEC. 9. Any person, who being a commission merchant in farm produce, shall (a) impose false charges for handling or services in connection with food products, or (b) fail to account for such food products, promptly and properly and to make settlements therefor with intent to defraud, or (c) shall make false or misleading statement or statements as to the market conditions with intent to deceive, or (d) enter into any combination to fix prices below market level, (e) directly or indirectly purchase for his or its own account, goods received by him upon consignment without prior authority therefor from the consignor, or shall fail to promptly notify the consignor of such purchase on his own account, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty dollars, nor more than five hundred dollars, and the cost of prosecution, or by imprisonment in the county jail or State house of correction and reformatory at Ionia, for not less than six months nor more than three years, or by such fine and imprisonment in the discretion of the court in each and every offense.

182. SEC. 10. Nothing in this act shall apply to retail dealers, real estate dealers or auctioneers selling farm products on commission.

183. SEC. 11. Any commission merchant of farm produce, as defined in sections one and two of this act, who shall fail to take out a license as required by this act, shall be deemed guilty of a misdemeanor.

and for each and every offense of selling farm produce on commission without such license, shall be punished by a fine of not more than one hundred dollars, and the costs of prosecution, or by imprisonment in the county jail for not more than thirty days, or both in the discretion of the court, and the fact that any person advertises and holds himself out as a commission merchant of farm produce, shall be prima facie evidence of the fact that he is a commission merchant of farm products as defined by this act.

[Added by Act No. 18, P. A. 1915.]

UNWHOLESOME VEAL.

(Act No. 340, Public Acts, 1913.)

AN ACT to prevent and punish the sale of immature and unwholesome calves and veal.

The People of the State of Michigan enact:

184. SECTION 1. No person shall for the purpose of selling, kill a calf less than four weeks old, and no person shall sell the meat of any such calf or have the same in his possession with intent to sell the same either by himself, his agents, or servants.

185. SEC. 2. Whoever shall do any of the acts or things prohibited by this act, or in any way violate any of its provisions, shall be deemed guilty of a misdemeanor, and shall be punished by a fine of not less than twenty-five dollars nor more than one hundred dollars, and the costs of the prosecution, or by imprisonment in the county jail not more than ninety days, or by both such fine and imprisonment in the discretion of the court.

186. SEC. 3. This act is immediately necessary for the public health.

UNWHOLESOME FOOD FOR ANIMALS.

(Act No. 179, Public Acts, 1913.)

AN ACT to regulate, prevent and punish the feeding of the flesh of old, decrepit, infirm, sick or diseased animals and unwholesome offal to animals or fowls, and provide a penalty for the violation thereof.

The People of the State of Michigan enact:

187. SECTION 1. No person shall feed to animals or fowls the flesh of an animal which has become old, decrepit, infirm or sick, or which has died from such cause, or offal or flesh that is putrid or unwholesome.

188. SEC. 2. Whoever shall do any of the acts or things prohibited by this act, or in any way violates any of its provisions, shall be deemed guilty of a misdemeanor, and shall be punished by a fine of not more than one hundred dollars and the costs of prosecution, or by imprisonment in the county jail not more than ninety days, or by both such fine and imprisonment in the discretion of the court.

189. SEC. 3. This act is immediately necessary for the preservation of the public health.

CERTIFIED MILK.

(Act No. 248, Public Acts, 1911.)

AN ACT providing for the incorporation of medical milk commissions, and certification of milk produced under their supervision.

The People of the State of Michigan enact:

190. SECTION 1. Authority is hereby given the board of health of any city, village or township in this State, so constituted as to have in its membership two or more physicians duly authorized to practice medicine under the laws of this State, to appoint five physicians duly authorized to practice medicine under the laws of this State a medical milk commission for the purpose of supervising the production, transportation and delivery of milk, which it is intended to use for infant feeding, sickroom clinical purposes in said city, village or township. In cities, villages or townships not having a board of health so constituted as above stated, the State Board of Health may make such appointment. All members of such milk commission shall have and possess all the powers and immunities provided by this act or any other act relating to the appointees of such board of health, while performing their duties as such appointees. One member of such commission shall be appointed and hold office from the time of such appointment until the end of the thirty-first of December, nineteen hundred eleven, one shall be appointed and hold office until the end of the thirty-first of December nineteen hundred twelve, one shall be appointed and hold office until the end of the thirty-first of December, nineteen hundred thirteen, and one shall be appointed and hold office until the end of the thirty-first of December, nineteen hundred fourteen, one shall be appointed and hold office until the end of the thirty-first of December, nineteen hundred fifteen, and until their several successors are appointed and qualified. The term of office of each member of the commission, after the termination of the aforesaid terms shall be five years, and on the expiration of any term a new appointment shall be made in the same manner above prescribed. No more than one milk commission shall be appointed for any one city, village, or township. Any and all members of such commission may be removed at any time by the board which appointed them. Such medical

milk commission shall make and file a certificate in writing in the manner hereinafter mentioned.

191. SEC. 2. Such certificates shall set forth:

The name of such association, which shall be as hereinafter designated;

The purpose for which the association shall be formed;

The names and residences of the medical directors who shall manage the affairs of the association for the first year of its existence;

The city, village or township in this State where such association shall operate.

[Am. by Act No. 196, P. A. 1913.]

192. SEC. 3. Such certificate shall be executed in triplicate and acknowledged before some person within this State authorized to take the acknowledgment of deeds, and one copy thereof shall be filed in the office of the clerk of the county where the purposes of such association are to be carried out and one copy shall be filed in the office of the Secretary of State; said certificate or copy thereof duly certified by the said clerk or Secretary of State shall be evidence in all courts or places.

193. SEC. 4. The name of such association shall be "The Medical Milk Commission of the (stating whether city, village or township) of (designating the name of city, village or township) (designating the name of the county) County of Michigan."

[Am. by Act No. 196, P. A. 1913.]

194. SEC. 5. Such medical directors shall have the power from time to time to make, alter and amend bylaws not inconsistent with the constitution and laws of the United States and of this State, and to appoint such agents and officers as shall in their judgment tend to promote or advance any purpose or purposes of such commission, and to prescribe their respective duties; and for the regulating of the conditions under which milk shall be produced by any dairyman or dairymen under contract with such commission.

195. SEC. 6. No medical director of any association organized under this act shall receive, directly or indirectly, from such association or dairyman, or dairymen producing milk under agreement with such commission, any salary or emolument or any compensation of any kind or character for any services rendered under the provisions of this act, and any medical director who shall receive any salary, emolument or any compensation of any kind or character for such services, shall be liable to a penalty of one hundred dollars to be recovered in an action of debt by the association of which he is a member, and in addition thereto shall be removed from his office as a member of said association, and thereafter disqualified from becoming a member of any association incorporated under the provisions of this act.

196. SEC. 7. Every such association shall have the power to enter into agreement in writing with any dairyman or dairymen for the production of milk under the supervision of such association for the pur-

poses enumerated in section one hereof, and to prescribe in such agreement the conditions under which such milk shall be produced, which conditions however, shall not be below the standards of purity and quality for certified milk as fixed by the American association of medical milk commissions, and the standards for milk now fixed or that may hereafter be fixed by the Board of Health of the state of Michigan. In any contract entered into by any such commission with any dairyman or dairymen, it may be provided that such medical milk commission may designate any analyst, chemist, bacteriologist, veterinarians, medical inspectors or other persons who in its judgment may be necessary for the proper carrying out of the purposes of such commission for employment of such dairyman or dairymen, and to prescribe and define their powers and duties, and that such person so employed by such dairyman or dairymen may be discharged from employment whenever such medical milk commission may request such discharge or removal in writing.

197. SEC. 8. All containers of any kind or character used in the carrying or distribution of milk produced by any dairyman or dairymen under contract with any medical milk commission shall have attached thereto or placed thereon a certificate or seal bearing the name of the medical milk commission with which such dairyman or dairymen producing such milk shall be under contract, which certificate shall have printed, stamped or written thereon the day or date of the production of the milk contained in any such container and the words "certified milk" in plain and legible form.

198. SEC. 9. The work and methods of any milk commission organized under this act and of the dairies of which milk is produced under contract with any such commission, shall at all times be subject to investigation and scrutiny by the local board of health and the Board of Health of the State of Michigan. The secretary of said State Board of Health and the local health officer shall be ex-officio members of every milk commission organized under this act.

199. SEC. 10. No person, firm or corporation shall sell or exchange or offer or expose for sale or exchange in any city, village or township as and for certified milk, any milk which is not certified by the medical milk commission of that city, village or township, and which is not produced in conformity with the methods and regulations for the production of certified milk from time to time adopted by the American association of medical milk commissions, and which is below the standards of purity and quality for certified milk as fixed by the American association of medical milk commissions.

[Am. by Act No. 196, P. A. 1913.]

200. SEC. 11. Whoever shall by himself, servant or agent sell, exchange or deliver or have in his custody with intent to sell, exchange or deliver, or offer or expose for sale in any city, village or township as certified milk, any milk which has not been certified by the medical milk commission of that city, village or township, or shall violate any of the provisions of this act, shall upon conviction thereof be deemed guilty of a misdemeanor, and shall be punished by a fine of not less than

fifty dollars, nor more than five hundred dollars, or by imprisonment in the county jail not more than ninety days, or by both such fine and imprisonment in the discretion of the court.

[Am. by Act No. 196, P. A. 1913.]

201. SEC. 12. All acts or parts of acts inconsistent with the provisions of this act are hereby repealed.

OLEOMARGARINE IN PUBLIC INSTITUTIONS.

(Act No. 45, Public Acts of 1891.)

AN ACT to prohibit the use of oleomargarine, butterine, or any other substitute for butter in any of the public institutions of this State, and to provide the punishment therefor.

The People of the State of Michigan enact:

202. SECTION 1. That the use of oleomargarine, butterine or any other substitute for butter, in any of the public institutions of this State, be and the same is hereby prohibited, except in the penal institutions of the State.

[Am. by Act 233, P. A., 1913.]

203. SEC. 2. Any warden, superintendent or other officer of any such institution, who shall knowingly violate the provisions of section one of this act, or shall knowingly permit the same to be violated shall be deemed guilty of a misdemeanor and every violation shall constitute a separate offense and on conviction thereof shall be punished by a fine of not less than twenty-five, nor more than one hundred dollars, together with costs of prosecution, or by imprisonment in the county jail of the county in which said institution is situated, not exceeding ninety days, or both such fine and imprisonment, at the discretion of the court.

MILK BOTTLES.

(Act No. 257, Public Acts of 1911.)

AN ACT to prohibit drivers of milk wagons and unauthorized persons from opening milk bottles, or in any way interfering with or molesting the caps or covers thereof after such bottles shall have been closed at the creamery, and during and after the process of delivery to patrons.

The People of the State of Michigan enact:

204. SECTION 1. From and after the date on which this act takes effect, it shall be unlawful for any driver of any milk wagon, or any distributor of milk, or any person whatsoever, except legally authorized

milk inspectors and persons to whom such milk is delivered, to open milk bottles or in any way interfere with or molest the caps or covers of the same after such milk bottles shall have been closed at the creamery, or during the process of the delivery of said milk or, after said milk shall have been delivered in due course of business and in the ordinary manner.

205. SEC. 2. Any person violating any of the provisions of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof in a court of competent jurisdiction shall be punished by a fine of not less than fifty dollars nor more than one hundred dollars, or by imprisonment in the county jail for not less than thirty days nor more than ninety days, or by both such fine and imprisonment in the discretion of the court.

FRUITS AND VEGETABLES.

(Act No. 207, Public Acts, 1913.)

AN ACT to prevent fraud and deception in the sale of Michigan grown fresh fruits and vegetables, and to provide penalties for violations of this act.

The People of the State of Michigan enact:

206. SECTION 1. In this act, unless the contents otherwise requires, the term "closed package" shall be construed to mean a barrel, box, basket, carrier or crate, of which all the contents cannot readily be seen or inspected when such package is prepared for market. Fresh fruits or vegetables in baskets or boxes, packed in closed or open crates, and packages covered with burlap, tarlatan or slat covers shall come within the meaning of the term "closed package." None of the provisions of this act shall apply to other than Michigan grown fruits and vegetables.

207. SEC. 2. Every person who, by himself or by his agent or employe, packs or repacks fresh fruits or vegetables in closed packages intended for sale in the open market, shall cause the same to be marked in a plain and indelible manner, as follows:

First, With his full name and address, including the name of the state where such fresh fruits and vegetables are packed, before such fresh fruits or vegetables are removed from the premises of the packer or dealer;

Second, The name and address of such packer or dealer shall be printed or stamped on said closed packages in letters not less than one-quarter inch in height.

208. SEC. 3. No person shall sell or offer, expose or have in his possession for sale, in the open market, any fresh fruits or vegetables packed in a closed package and intended for sale, unless such package is marked as is required by this act.

209. SEC. 4. No person shall sell or offer, expose or have in his pos-

session for sale, any fresh fruits or vegetables packed in a closed or open package, upon which package is marked any designation which represents such fruit as "No. 1," "Finest," "Best," "Extra Good," "Fancy," "Selected," "Prime," "Standard," or other superior grade or quality, unless such fruit or vegetables consist of well grown specimens, sound, of nearly uniform size, normal shape, good color, for the variety, and not less than ninety per cent free from injurious or disfiguring bruises, diseases, insect injuries or other defects, natural deterioration and decay in transit or storage excepted.

210. SEC. 5. No person shall sell or offer or expose or have in his possession for sale, any fresh fruits or vegetables packed in any package in which the faced or shown surface gives a false representation of the contents of such package, and it shall be considered a false representation when more than twenty per cent of such fresh fruits or vegetables are substantially smaller in size than or inferior in grade to, or different in variety from, the faced or shown surface of such package, natural deterioration and decay in transit or storage excepted.

211. SEC. 6. Every person who, by himself, his agent or employe, knowingly violates any of the provisions of this act shall for each such offense, be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not exceeding ten dollars, or by imprisonment in the county jail for a period not exceeding thirty days, or by both such fine and imprisonment in the discretion of the court.

TABLE GRAPES.

(Act No. 107, Public Acts, 1913.)

AN ACT to regulate the packing for shipment and sale of table grapes, and providing penalties for violation thereof.

The People of the State of Michigan enact:

212. SECTION 1. No grapes that are not ripe, or are the fruit of unhealthy vines, or are for any reason unhealthy or in a state of decay shall be packed for shipment by any grower, packer or shipper in any package or basket of less than sixteen pounds capacity.

213. SEC. 2. Any person or persons found guilty of violating any of the provisions of this act, in any court of competent jurisdiction, shall be deemed guilty of a misdemeanor and shall be punished by a fine of not less than ten dollars nor more than one hundred dollars, or by imprisonment in the county jail for not less than ten days nor more than ninety days, or by both such fine and imprisonment in the discretion of the court.

214. SEC. 3. It shall be the duty of the state dairy and food commissioner, his deputies and assistants, to enforce the provisions of this act.

COLLECTION OF REGISTRATION FEES BY CIVIL SUIT.

(Public Act No. 37, Session Laws, 1913.)

AN ACT to provide for the collection of registration, license and other fees due the state dairy and food department, by means of a civil suit in the state courts.

The People of the State of Michigan enact:

215. SECTION 1. Whenever any corporation, firm or person engaged as a dealer, manufacturer, storer or transporter of any food or beverage product for man or animal, doing business within the state shall for thirty days after the same becomes due refuse or neglect to pay any registration or license fee which the laws of Michigan require said corporation, firm or person to pay to the state dairy and food department, the state dairy and food commissioner may bring a civil suit in the name of the people of the state of Michigan for the use and benefit of the state dairy and food department for the recovery of said registration or license fee.

216. SEC. 2. Said suit may be commenced in the circuit court for the county of Ingham or in the circuit court of the county where the principal business office of such defendant corporation, firm or person shall be located and shall be prosecuted in like manner as in civil suits between individuals, and judgment and execution may follow in like manner and costs may be recovered to be taxed as in other civil cases, and all moneys recovered shall be paid into the state treasury for the use and benefit of the state dairy and food department: Provided, That no suit as authorized by this act, shall be commenced until thirty days after the defendant in such suit has been duly notified of his or her delinquency, either personally or by registered letter.

217. SEC. 3. All expenses incurred by the state dairy and food commissioner under this act shall be defrayed by the state dairy and food department out of its annual appropriation.

CARBONATED BEVERAGES, SYRUPS, EXTRACTS AND SOFT DRINKS.

(Act No. 288, P. A., 1915.)

AN ACT to regulate the manufacture and sale of carbonated beverages, syrups, extracts and soft drinks within the State and prescribe penalties for violation thereof.

The People of the State of Michigan enact:

218. SECTION 1. No person, firm or corporation shall manufacture and bottle for sale any carbonated beverages, soda water, grape juice, cider, mineral water, or other soft drink within this State without having first filed with the Dairy and Food Commissioner an application for a license, accompanied with a fee of ten dollars; upon receipt of which application the Dairy and Food Commissioner shall issue to the person, firm or corporation making such application, a license to manufacture carbonated beverages, soda waters, grape juice, cider, mineral waters or other soft drinks as hereinafter provided. Said license shall run from one year from the date of the application, unless sooner revoked as herein provided and shall be renewed annually thereafter.

219. SEC. 2. No person, firm or corporation shall sell, offer for sale or have in their possession with intent to sell, any soda water syrup or extract, soft drink syrup, or extract bearing a distinguishing name or trade mark, without first registering the name or brand of the syrup or extract, and the name and address of the manufacturer thereof, with the Dairy and Food Commissioner. He or they shall also pay into the State Treasury at the time of making such registration a license fee of five dollars for each and every brand of said syrup or extract that is sold or offered for sale. Said registration shall be renewed annually: Provided, That whenever any manufacturer, agent or seller shall have paid this fee, his agent or dealer using the same shall not be required to do so. All moneys collected by the Dairy and Food Commissioner under the provisions of this act shall be paid into the State Treasury. The provisions of this section shall not apply to local sellers of soda water, grape juice, cider, or other carbonated beverages, as to syrups and extracts made by themselves for their own use exclusively. A manufacturer, jobber or dealer in every syrup, extract or soft drink required to be licensed under this section, shall, upon making application for such license, file with the Dairy and Food Commissioner a sample of said syrup, extract or soft drink for analysis, and said license shall not be granted by the Dairy and Food Commissioner unless he shall determine that said syrup, extract or soft drink is free from all harmful drugs and other ingredients that are injurious to health.

220. SEC. 3. The Dairy and Food Commissioner shall have the power to revoke any license issued under the provisions of this act, whenever it is determined by himself or any of his deputies, chemists or other properly qualified official that any of the provisions of this act have

been violated. Any person, firm or corporation whose license has been so revoked shall discontinue the manufacture of bottle carbonated beverages, soda waters, grape juice, cider or other mineral waters until the provisions of this act have been complied with and a new license issued. He may revoke such license temporarily until there is a compliance with such conditions as he may prescribe, or permanently for the unexpired period of such license.

221. SEC. 4. Before revoking any license, the Dairy and Food Commissioner shall give written notice to the licensee affected, stating that he contemplates the revocation of the same and giving his reasons therefor. Said notice shall appoint a time of hearing before said commissioner and shall be mailed by registered mail to the licensee. On the day of hearing, the licensee may present such evidence to the commissioner as he deems fit, and after hearing all the testimony, the commissioner shall decide the question in such manner as to him appears just and right.

222. SEC. 5. Any licensee who feels aggrieved at the decision of the commissioner, may appeal from said decision within ten days by writ of certiorari to the circuit court of the county where licensee resides and issue shall be framed in said court and a trial had and its decision shall be final.

223. SEC. 6. For the purpose of this act a bottled carbonated beverage, soda water, grape juice, cider or other soft drink, except pure fruit juices, shall consist of a beverage made from a pure cane or beet sugar syrup, containing pure flavoring materials, with or without added fruit acid, with or without added color and shall contain in the finished product not less than eight per cent sugar: Provided, That nothing in this act shall prohibit the use of any other harmless ingredient in the manufacture of carbonated beverages: And Provided further, That whenever artificial coal tar colors are used nothing but the certified colors as approved by the federal government are permissible. The provisions of this section shall not apply to retailers who do not bottle soda water or other soft drinks, or to beverages made in imitation of beer, bitter drinks or other similar drinks. And all bottled carbonated beverage or other soft drinks not in compliance with the standards established by this act, shall be deemed to be adulterated.

224. SEC. 7. Whenever artificial colors or flavors are used in the manufacture of carbonated beverages, soda waters, grape juice, cider, mineral waters or other soft drinks the bottle or other container shall be distinctly labeled "Artificially colored and flavored." All ciders, fruit ades, fruit juices or other similar drinks that are made in imitation of the natural product shall be properly and distinctly labeled with the word "Imitation" followed by the name of the beverage. All beverages sold in bulk; or from open receptacles that contain artificial coloring or artificial flavors of any character, shall be so labeled, said labels to be prominently displayed on all stands, booths, or other places where said beverages are sold or dispensed. Labels for this purpose shall not be less than four inches wide and ten inches long, and shall contain the following:

"Artificially colored, artificially flavored," or "Artificially colored,

imitation flavor." When said beverages contain artificial color and natural fruit flavor, said labels shall indicate the presence of the artificial coloring as follows: "Artificially colored." When said beverages contain artificial flavors and no artificial coloring, they shall be labeled as follows: "Artificial flavor," or "Imitation flavor."

225. SEC. 8. All buildings, stores, factories, or other places where carbonated beverages, soda waters, grape juice, cider, mineral waters or other soft drinks are manufactured or bottled shall be well lighted and ventilated and shall be kept at all times in a sanitary condition. All machines, bottles, jars or other utensils used in the manufacture of carbonated beverages, soda water, mineral waters or other soft drinks shall be kept at all times in a clean and sanitary place and in a sanitary condition.

226. SEC. 9. All bottles used in the manufacture of carbonated beverages, soda water, grape juice, cider, carbonated mineral waters or any other soft drink, before being filled shall be sterilized by soaking in a hot caustic solution of not less than one hundred twenty degrees Fahrenheit that shall contain not less than five per cent caustic or alkali, expressed in terms of sodium hydrate, for a period of not less than five minutes, then thoroughly rinsed in pure water until free from alkali; or by any other suitable process that will properly sterilize the bottles.

227. SEC. 10. No bottles shall be used in the manufacture of carbonated beverages, soda waters, grape juice, cider, mineral waters or other soft drinks, in which the metal or rubber part of the stopper comes in contact with the beverage. The provisions of this section shall not apply to carbonated water put up in "siphons."

228. SEC. 11. Any person, firm or corporation who shall do any of the acts or things prohibited, or neglect or refuse to do any of the acts or things required by this act or in any way violate any of its provisions, shall be deemed guilty of a misdemeanor, and shall be punished by a fine of not more than one hundred dollars, or by imprisonment in the county jail for a period of not more than ninety days or by both such fine and imprisonment in the discretion of the court.

229. SEC. 12. The Dairy and Food Commissioner shall be charged with the enforcement of the provisions of this act.

STATE BRAND FOR BUTTER.

(Act No. 53, P. A., 1915.)

AN ACT to provide for a state brand for Michigan butter, for the purpose of insuring a higher standard of excellence and quality, a more uniform butter market, and to insure a more healthful product for consumption at home and abroad, and to regulate the use of such mark or brand.

The People of the State of Michigan enact:

230. SECTION 1. Any person, firm or corporation manufacturing butter in this state may use the brand, mark or label therefor as provided in this act.

231. SEC. 2. Said trade mark or brand and its use and regulation shall be in charge of and under the control of a commission of three members consisting of the state dairy and food commissioner, the president of the Michigan State Dairymen's Association and the President of the Michigan State Butter Makers' Association.

232. SEC. 3. The state trade mark or brand shall be controlled, used, manufactured and issued under such rules and regulations as may be found necessary from time to time by the said commission. Said commission or commissioners shall have power to make such changes in the rules and regulations for the use of said trade mark or brands as it may deem necessary from time to time.

233. SEC. 4. The rules governing the use of such trade mark or brand shall be published by and through bulletins issued by the state dairy and food department. Such labels, stamps or other means of imprinting such trade mark or brand upon the manufactured product or the receptacles containing the same, shall be furnished to those entitled to the use thereof by the state dairy and food department.

234. SEC. 5. The said commission is hereby directed and authorized to secure a copy-right under the laws of the United States for trade marks or brands, and copyrights for such trade mark or brand of butter. Said trade mark, brand, or label shall be of such size and design as the said commission shall designate and shall contain in prominent letters, the words, "Michigan butter, License Number" and the words, "State Butter Control."

235. SEC. 6. Any person, firm or corporation desiring to use the brand or label provided for in this act in the manufacture or sale of butter shall make written application for a license therefor to the dairy and food commissioner, which application shall describe by location and name the creamery or factory in which such butter is to be manufactured, and give such other information as may be required. A license shall be granted to such person, firm or corporation to use such brand or label at the factory described in the application, if on investigation by the dairy and food commissioner, his deputy or duly authorized assistants, it appears that all the provisions of this act and the rules and regulations by the commission have been complied with. Such license shall state that the brand or label provided for by the said commission may be used in connection with the manufacture or sale of butter from the factory described in such license. Such factories so described shall be given the same number as the serial number of the license.

236. SEC. 7. No person, firm or corporation shall use in the manufacture or sale of butter such brand or label without having first obtained a license therefor as provided in this act. Such license so granted may be revoked by the said commissioner if any of conditions of this act or of the rules and regulations of the commission are not complied with. Such license so granted shall not be transferable.

237. SEC. 8. The use of any brand or mark for butter or butter substitute resembling the above brand or so near like it that it can be confounded with it, is prohibited.

238. SEC. 9. Any person, firm or corporation violating any of the provisions of this act shall be deemed guilty of a misdemeanor and on

conviction thereof shall be fined not more than one hundred dollars or imprisoned in the county jail for not more than thirty days.

STANDARD MILK BOTTLES.

(Act No. 154, P. A., 1915.)

AN ACT to prevent fraud and deception in the sale of milk and cream, providing standard milk bottles and for the sealing thereof.

The People of the State of Michigan enact:

239. SECTION 1. On and after January one, nineteen hundred sixteen, bottles used for the sale of milk and cream in this state shall be of the capacity of half gallon, three pints, one quart, one pint, ten ounce, half pint, one gill filled full to the bottom of the lip. The following variations on individual bottles or jars may be allowed: Six drams above and six drams below on the half gallon; five drams above and five drams below on the three-pint; four drams above and four drams below on the quart; three drams above and three drams below on the pint; two and one-half drams above and two and one-half drams below on the ten ounce; two drams above and two drams below on the half pint; two drams above and two drams below on the gill. But the average contents of not less than twenty-five bottles selected at random from at least four times the number tested must not be in error by more than one-quarter of the tolerances: One and five-tenths drams above and one and five-tenths drams below on the half gallon; one and twenty-five hundredths drams above and one and twenty-five hundredths drams below on the three pint; one dram above and one dram below on the quart; seventy-five hundredths drams above and seventy-five hundredths drams below on the pint; seventy-five hundredths drams above and seventy-five hundredths drams below on the ten ounce; five-tenths drams above and five-tenths drams below on the half pint; five-tenths drams above and five-tenths drams below on the gill. Bottles or jars used for the sale of milk shall have clearly blown or otherwise permanently marked in the side of the bottle, the capacity of the bottle and the word: "sealed" and in the side or bottom of the bottle the name, initials or trade-mark of the manufacturer and designating number, which designating number shall be different for each manufacturer and may be used in identifying the bottles. The designating number shall be furnished by the state superintendent of weights and measures upon application by the manufacturer, and upon filing by the manufacturer of a bond in the sum of one thousand dollars with sureties to be approved by the attorney general, conditioned upon their performance of the requirements of this section. A record of the bonds furnished, the designating numbers, and to whom furnished, shall be kept in the office of the superintendent of weights and measures.

240. SEC. 2. On and after January one, nineteen hundred sixteen,

any manufacturer who sells milk or cream bottles to be used in this state, which do not comply as to size and markings with the provisions of this act, shall suffer the penalty of five hundred dollars, to be recovered by the attorney general in an action against the offender's bondsmen, to be brought in the name of the people of the state. Any dealer who uses, for the purpose of selling milk or cream, jars or bottles purchased after this law takes effect, which do not comply with the requirements of this act as to markings and capacity, shall be deemed guilty of using false or insufficient measure.

241. SEC. 3. Sealers of weights and measures are not required to seal bottles or jars for milk or cream marked as in this act provided, but they shall from time to time make tests on individual bottles used by the various firms in the territory over which they have jurisdiction, in order to ascertain whether the above provisions are being complied with, and they shall report violations found immediately to the superintendent of weights and measures. Any dealer who knowingly uses for the purpose of selling milk or cream, jars or bottles purchased after this law takes effect, which do not comply with this act as to marking the capacity, shall be guilty of a misdemeanor and be punished accordingly.

PASTEURIZATION.

(Act No. 93, P. A., 1915.)

AN ACT to provide for pasteurizing the by-products of cheese factories, creameries, skimming stations and other places where milk is received and distributed.

The People of the State of Michigan enact:

242. SECTION 1. Every owner, operator or manager of a cheese factory, creamery, skimming station or other place where milk is received and the by-products distributed, shall, before returning to or delivering to any person or persons any skim milk, whey, buttermilk, or other milk by-products to be used for feeding purposes for farm animals, cause such skim milk, whey, buttermilk, or other milk by-products to be thoroughly pasteurized by heating the same to one hundred forty-five degrees Fahrenheit and holding at that temperature for not less than thirty minutes or to one hundred eighty-five degrees without holding:

Provided, That the provisions of this act shall not apply to cheese factories or creameries that pasteurize the milk or cream prior to manufacture.

243. SEC. 2. Whoever violates any of the provisions of this act shall be deemed guilty of a misdemeanor, and on conviction shall be punished by a fine of not more than one hundred dollars, or imprisonment in the county jail for not exceeding ninety days, or both, in the discretion of the court.

DECEPTIVE ADVERTISING.

(Act No. 276, Public Acts, 1913.)

AN ACT to regulate and prohibit false, deceptive, fraudulent and misleading advertising in newspapers, periodicals or other publications, or by circulars or handbills.

The People of the State of Michigan enact:

SECTION 1. Any person, firm, corporation or association, or the agent or manager of any such firm, corporation or association who, with intent to sell or in anywise dispose of merchandise, securities, service or anything offered by such person, firm, corporation or association, directly or indirectly, to the public for sale or distribution, or with intent to increase the consumption thereof, or to induce the public in any manner to enter into any obligation relating thereto, or to acquire title thereto, or an interest therein, knowingly makes, publishes, disseminates, circulates, or places before the public, or knowingly causes directly or indirectly to be made, published, disseminated, circulated or placed before the public, in this State, in a newspaper or other publication, or in the form of a book, notice, handbill, poster, bill, circular, pamphlet, or letter, or in any other way, an advertisement of any sort regarding merchandise, securities, service or anything so offered to the public, which advertisement contains any assertion, representation or statement of fact which is untrue, deceptive or misleading, shall be guilty of a misdemeanor, and shall be punished by a fine of not less than twenty-five dollars nor more than two hundred dollars, or by imprisonment in the county jail for a period of not more than ninety days, or by both such fine and imprisonment in the discretion of the court: Provided, That the publisher or printer of any newspaper or other periodical shall not be liable under this act for publishing deceptive advertising received from any other person: Provided further, That said printer or publisher is not aware of the deceptive character of the advertising so received.

OFFENSES AGAINST THE PUBLIC HEALTH.

(C. L. 11404) Section 1. If any person shall knowingly sell any kind of diseased, corrupted or unwholesome provisions, whether for meat or drink, without making the same fully known to the buyer, he shall be punished by imprisonment in the county jail not more than six months, or by fine not exceeding two hundred dollars.

(C. L. 11405) Section 2. If any person shall fraudulently adulterate, for the purpose of sale, any substance intended for food, or any wine, spirits, malt liquor, or other liquor intended for drinking, he shall be punished by imprisonment in the county jail not more than one year, or by fine not exceeding three hundred dollars, and the article so adulterated shall be forfeited and destroyed.

(C. L. 11406) Section 3. If any person shall fraudulently adulterate, for the purpose of sale, any drug or medicine, in such manner as to render the same in-

jurious to health, he shall be punished by imprisonment in the county jail not more than one year, or by fine not exceeding four hundred dollars, and such adulterated drugs and medicines shall be forfeited and destroyed.

MICHIGAN SUPREME COURT.

DECISIONS RELATIVE TO DAIRY AND FOOD LAWS.

PEOPLE v. SNOWBERGER.

(Opinion filed May 25, 1897.)

Adulteration of Food—Statutory Offenses—Intent—Police Power.

1. It is competent for the legislature under the police power, to provide for the protection of the public health by making it an offense punishable by fine and imprisonment to sell adulterated food or drink, irrespective of the seller's knowledge of the adulteration.
2. Act No. 193, Public Acts 1895, prohibits the manufacture or sale of adulterated articles of food or drink, and prescribes what shall be deemed adulteration within the meaning of the act. Sec. 8 forbids any person from *knowingly* offering for sale cheese which is falsely labeled; this being the only case in which knowledge is expressly made an element of an offense designated by such statute. *Held*, that proof of guilty knowledge or intent is not essential to the conviction of one who sells adulterated food.

(113 Mich. 86.)

Exceptions before judgment from Monroe; Kinne, J.

Michael Snowberger was convicted of selling adulterated food, in violation of Act No. 193, Public Acts of 1895.

Conviction affirmed.

William Look and Ira G. Humphrey, for appellant.

Bowen, Douglas & Whiting, of counsel.

Willis Baldwin, Prosecuting Attorney, for the people.

Long, C. J.: Respondent was convicted under an information charging that: "On the 19th day of April, A. D., 1897, at the city of Monroe, and in the county aforesaid, Michael Snowberger did offer for sale, and sell, to Carl Franke, an adulterated article of food, to wit: A quantity of mustard, to wit, a quarter of a pound, colored and adulterated with tumeric, whereby the said mustard, as an article of food, was damaged and its inferiority concealed and whereby it was made to appear of better and of greater value than it really was, the same not being a mixture or compound recognized as ordinary articles or ingredients of articles of food; contrary to the form of the statute in such case made and provided," etc.

The information was filed under Act No. 193, Public Acts 1895, entitled "An act to prohibit and prevent adulteration, fraud and deception in the manufacture and sale of articles of food and drink." The act provides:

Section 1. "No person shall within this State manufacture for sale, offer for sale, or sell any article of food which is adulterated within the meaning of this act."

Section 2. "The term food as used herein, shall include all articles used for food or drink, or intended to be eaten or drunk by man, whether simple, mixed or compound."

Section 3. "An article shall be deemed to be adulterated within the meaning of this act: One, If any substance or substances have been mixed with it so as to lower or depreciate or injuriously affect its quality, strength or purity; Two, If any inferior or cheaper substance or substances have been substituted wholly or in part for it; Three, if any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it; Four, if it is sold under the name of another article; Five, If it consists wholly or in part of a diseased, decomposed, putrid, infected, tainted or rotten animal or vegetable substance or article, whether manufactured or not, or in case of milk, if it is the product of a diseased animal; Six, If it is colored, coated, polished or powdered, whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is; Seven, If it contains an added substance or ingredient which is poisonous or injurious to health: Provided, That the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles or ingredients of articles of food, if each and every package sold or offered for sale be distinctly labeled as mixtures or compounds, and are not injurious to health."

Section 19 makes any violation of the act a misdemeanor and provides a penalty by a fine of not less than \$100 nor more than \$500, or by imprisonment in the county jail, etc.

On the trial respondent admitted, that on the 19th day of April, 1897, he, at the city of Monroe, this State, offered for sale and did sell to Carl Franke a quantity of mustard, to wit, a quarter of a pound which was afterwards found upon a chemical examination to be colored and adulterated with tumeric, whereby the said mustard as an article of food was damaged and its inferiority concealed, and it was thereby made to appear of greater and better value than it really was; the same not being a mixture or compound recognized as an ordinary article or ingredient of articles of food.

But he claimed that said article of mustard, so sold was purchased by him as a pure article in good faith, and that he believed at the time of the purchase by him and also at the time of the sale to the said Franke, that the same was pure mustard, free from any coloring and adulteration with tumeric or any other coloring or adulterant, and that no inferiority was concealed whereby it was made to appear of greater or better value than it really was; that at the time he purchased the same he asked for pure mustard and that the same was warranted to him as pure; that he did not make or cause to have made a chemical examination of the same and did not inform himself or endeavor to ascertain the methods of determining pure from impure mustards, but, relied upon the representations of his vender and the appearance of the article to the eye; and that he did not intend to violate the law.

From such conviction respondent appeals.

It is the contention of counsel for respondent that it was the intent

of the legislature to provide by the act that no person should be convicted and punished for selling adulterated food or drink without showing that he knew the same to be adulterated; that the information does not charge such knowledge, and the proofs disclosed that respondent acted in good faith and in the belief that the article sold was pure and unadulterated.

The act cannot be so construed. The offense under the act consists in selling an article intended to be eaten or drunk which is adulterated. Section 8 of the acts shows conclusively that the legislature did not intend to make criminal intent or guilty knowledge a necessary ingredient of the offense. As a rule there can be no crime without a criminal intent; but this rule is not universal.

In *People v. Roby*, 52 Mich. 577 (50 Am. Rep. 270), the respondent was convicted of the offense under the statute of keeping his saloon open on Sunday. It was there said: "It is contended that to constitute an offense under the section referred to (How. Stat., Sec. 2274), there must be some evidence tending to show an intent on the part of the respondent to violate it. * * * * The section under which Roby is prosecuted makes the crime consist, not in the affirmative act of any person, but in the negative conduct of failing to keep the saloon closed. As a rule there can be no crime without a criminal intent; but this is not by any means a universal rule. One may be guilty of the high crime of manslaughter when his only fault is gross negligence, and there are many other cases where mere neglect may be highly criminal. Many statutes which are in the nature of police regulations, as this is, impose criminal penalties irrespective of any intent to violate them; the purpose being to require a degree of diligence for the protection of the public which shall render violation impossible."

Many cases are cited in that case where convictions were sustained although the element of guilty knowledge was lacking. Thus in Massachusetts a person may be convicted of the crime of selling intoxicating liquors as a beverage though he did not know it to be intoxicating.

Com. v. Boynton, 2 Allen, 160.

And of the offense of selling adulterated milk, though ignorant of its adulteration.

Com. v. Farren, 9 Allen, 489.

Com. v. Nichols, 10 Allen, 199.

Com. v. Walte, 11 Allen, 264.

Com. v. Smith, 103 Mass. 444.

In Missouri a magistrate may be liable to the penalty for performing the marriage ceremony for minors without consent of parents or guardians, though he may suppose them to be of the proper age.

Beckham v. Nacke, 56 Mo., 546.

Where the killing and sale of a calf under a specified age is prohibited there may be a conviction though the party was ignorant of the animal's age.

Com. v. Raymond, 97 Mass., 567.

In *People v. Welsh*, 71 Mich. 548, this court in speaking of *People v. Roby*, supra, said: "When a statute does not make intent an element of the offense, but commands an act to be done or omitted which in the absence of the statute might have been done or omitted without culpability, ignorance of the fact or state of things contemplated by the statute will not excuse its violation;" citing:

State v. Hartfield, 24 Wis., 60.

In the late case in this court of *Walcott v. Judge of Superior Court*, 112 Mich. 311, the relator, as prosecuting attorney of the county, filed an information against one Fred Saunders, charging him with being engaged in selling liquor without giving the bond required by the statute. The bond was fair upon its face, but one of the sureties, it appears was disqualified under section 2282dl, 3 How. Stat. The information did not allege that respondent had knowledge of this defect in the bond. The information was quashed by the court below, and the relator asked the aid of mandamus to compel the respondent to reinstate the case. It was said by this court in the majority opinion: It was the intention of the legislature to make the execution and delivery of the prescribed bond a condition precedent to sale, and to require the person desiring to engage in the business mentioned to assume the responsibility of knowing that the bond when presented complies in all essential particulars with the law. He must know that his sureties are males, that they are resident freeholders of the township, village or city in which the business is to be carried on, that they hold none of the offices prohibited by the act, and that at the time the bond is filed neither is a surety upon more than two bonds required by the act."

It appeared that one of the sureties was already upon more than two bonds; and the writ was granted compelling the respondent to reinstate the case. The case of *People v. Roby* was cited in that case in support of the proposition that intent was not an ingredient of the offense.

These regulations are under the police power in the State. Undoubtedly it was competent for the legislature to prohibit the sale of adulterated articles of food and drink. The police power of the State extends to the protection of the health as well as of the lives and property of the citizens. Generally it is for the legislature to determine what laws and regulations are needed to protect the public health and secure the public comfort and safety. If it passes an act ostensibly for the public health and thereby destroys or takes away the property of the citizen or interferes with his liberty it is for the courts to determine whether it relates to and is appropriate to promote such public health. Under the police power the conduct of individuals and the use of property may be regulated so as to interfere to some extent with the freedom of the one and the enjoyment of the other. It cannot be doubted that the legislature intended by this act to protect the public against the harmful consequences of sales of adulterated food, and to the end that its purpose might not be defeated to require the seller at his peril to know that the article which he offers for sale is not adulterated.

As was said by the supreme court of Ohio, in *State v. Kelly*, 54 Ohio St. 166: "If this statute had imposed upon the State the burden of

proving * * * his knowledge of its adulteration, it would thereby have defeated its declared purpose."

In *State v. Smith*, 10 R. I. 260, the court, in speaking of the offense of selling adulterated milk, said: "Counsel for defendant asked the court to charge that there must be evidence of a guilty intent on the part of the defendant and of a guilty knowledge in order to convict him. Our statute in that provision of it, under which this indictment was found does not essentially differ from the statute of Massachusetts, and there previous to the enactment of our statute the supreme court had determined that a person might be convicted although he had no knowledge of the adulteration; the intent of the legislature being that the seller of milk should take upon himself the risk of knowing that the article he offers for sale is not adulterated."

Statutes in many states have been passed providing that whoever sells, or keeps or offers for sale adulterated milk, or milk to which water or other foreign substance has been added shall be punished, etc. Under these statutes it has been decided many times that risk is upon the seller of knowing that the article he offers for sale is not adulterated, and that it is not necessary in an indictment under such a statute to allege or prove criminal intent or guilty knowledge.

Com. v. Smith, 103 Mass., 444.

Com. v. Warren, 160 Mass., 533.

People v. Clipperly, 101 N. Y., 634.

The same rule that no criminal intent is necessary has been held to apply under an act forbidding the sale of oleomargarine or other imitations of dairy products, unless express notice be given to the purchaser.

Bayles v. Newton, 50 N. J. L., 549.

Com. v. Gray, 150 Mass., 327.

The English rule is in keeping with the doctrine in this country on this subject.

Roberts v. Egerton, L. R., 9 Q. B., 494.

The statute not requiring knowledge on the part of the seller to make the offense complete, we are satisfied that the conviction must be sustained. No case has been cited, and we are not able to find one, where a contrary doctrine is laid down. The act may work hardship in many cases; but that question is one to be addressed to the legislature and not to the courts. As we have said, it was within the power of the legislature to pass the act making it an offense punishable with fine and imprisonment to sell adulterated food or drink, although the person selling the same has no knowledge that it is adulterated. Under this statute one making sales must do so at his peril.

The conviction is affirmed.

Grant, J., did not sit. The other justices concurred.

PEOPLE v. WORDEN GROCERY CO.

(Opinion filed December 6, 1898.)

Constitutional Law—Act to Prevent Sale of Adulterated Vinegar—Complaint—Reasonableness of Statute—Defense.

1. The title to an act reading "An act in relation to the manufacture and sale of vinegar, and to repeal Act No. 224 of the Public Acts of 1889, approved, etc., held broad enough to support an enactment to prevent deception in the sale of vinegar or to prevent adulteration of vinegar.
2. A conviction for a sale of "fermented cider vinegar," which was not up to the standard prescribed by Act No. 71, Public Acts of 1897, may be had under a complaint drawn under section 2 of the act.
3. The question as to whether the requirements of an act passed to prevent the sale of adulterated vinegar are such as to render the act unreasonable, cannot be determined by the courts and does not raise a question of fact for determination by a jury.
4. Where a sample of vinegar is taken from a dealer for the purpose of testing it to see if it conforms to the standard required by law it is not necessary that a sample be left with the dealer.
5. A prosecution for a sale of vinegar in violation of Act No. 71, Public Acts of 1897, cannot be defended on the ground that the person so manufacturing or selling vinegar below the standard has no knowledge that it is not within the standard prescribed.

Error to the circuit court of Kent county; Allen C. Adsit, J.

Appeal of the Worden Grocer Co. from a conviction of a violation of Act No. 71, Public Acts of 1897. Affirmed.

Frank A. Rodgers, Prosecuting Attorney; Benn M. Corwin, Assistant Prosecuting Attorney, for the people.

Rood & Hindman, for respondent.

Long, J.: The complaint in this cause charges that the defendant: "On February 5, 1898, did unlawfully sell and deliver to John T. Owens of Benton Harbor, Michigan, a large quantity, to wit: One barrel of vinegar which was not then and there in compliance with the provisions of Act No. 71, Public Acts, 1897, in this, viz.: That said vinegar was sold as "fermented cider vinegar" and branded as such; that said vinegar contained less than one and three-fourths per cent by weight upon full evaporation (at the temperature of boiling water) of solids contained in the fruit from which said vinegar is fermented, to wit: One and fifty-one one-hundredths per cent of solids; and said vinegar contained less than two and a half tenths of one per cent ash or mineral matter, the same being the product of the material from which said vinegar was manufactured, to wit: Eight one-hundredths of one per cent of ash or mineral matter, against the form of the statute in such case made and provided," etc.

The cause was commenced in the police court, and, being removed to the circuit, came on to be heard before a jury. The defendant refused to plead, and counsel for defendant thereupon made a motion to quash the complaint and summons for several reasons which will hereafter be discussed. The court upon the trial directed a verdict of

guilty, and the cause comes to this court on exceptions before judgment.

The title of the act reads: "An act in relation to the manufacture and sale of vinegar, and to repeal Act No. 224 of the Public Acts of 1889, approved," etc. Sections one and two of the act, being the sections in question, provide:

"Section 1. The People of the State of Michigan enact, That no person shall manufacture for sale, offer or expose for sale, sell or deliver, or have in his possession with intent to sell or deliver, any vinegar not in compliance with the provisions of this act. No vinegar shall be sold as apple, or orchard or cider vinegar, which is not the legitimate product of pure apple juice, known as apple cider or vinegar not made exclusively of said apple cider or vinegar into which foreign substance, drugs or acids have been introduced, as may appear upon proper test, and upon said test, shall contain not less than one and three-fourths per cent, by weight, of cider vinegar solids upon full evaporation at the temperature of boiling water.

"Section 2. All vinegar made by fermentation and oxidation without the intervention of distillation shall be branded 'fermented vinegar' with the name of the fruit or substance from which the same is made. And all vinegar made wholly or in part from distilled liquor shall be branded 'distilled vinegar,' and all of such distilled vinegar shall be free from coloring matter added during or after distillation and from color other from that imparted to it by distillation. And all fermented vinegar not distilled shall contain not less than one and three-fourths per cent, by weight, upon full evaporation (at the temperature of boiling water) of solids, contained in the fruit or grain from which said vinegar is fermented, and said vinegar shall contain not less than two and a half tenths of one per cent ash or mineral matter, the same being the product of the material from which said vinegar is manufactured. And all vinegar shall be made wholly from the fruit or grain from which it purports to be or is represented to be made, and shall contain no foreign substance and shall contain not less than four per cent, by weight, of absolute acetic acid."

It appears by the testimony that the defendant, a Michigan corporation doing business at Grand Rapids, on February 5, 1898, sold a barrel of vinegar to one John T. Owens of Benton Harbor. The sale is admitted. A sample of the vinegar was taken from this barrel and analyzed by the State Analyst, Mr. Fred H. Borradaile. The correctness of this analysis is not disputed. This analysis showed that the vinegar did not comply with the requirements of the statute in that it did not contain the amount of solids nor the amount of ash or mineral matter required.

The contentions made by counsel for defendant mostly relate to the validity of the act.

1. It is contended that the title to the act does not express any object; that the act was intended to prevent deception in the sale of vinegar or to prevent adulteration of vinegar, but that no such object is expressed in the title; and that the act is therefore in conflict with section 20 of article 4, of the constitution of this State, which provides that: "No law shall embrace more than one object, which shall be expressed in its title."

We think this contention sufficiently answered by what was said by this court in *Soukup v. VanDyke*, 109 Mich. 681. There the title was: "An act relative to justices' courts in the city of Grand Rapids." It was said "The title is sufficient if it fairly and reasonably announces the object and that is a single one. If this requirement be observed,

the legislature must determine for itself how broad and comprehensive shall be the object of a statute and how much particularity shall be employed in the title in defining it."

In *People v. Kelly*, 99 Mich. 82, the title under discussion was: "An act relative to disorderly persons, and to repeal," etc.

See also:

State v. County Judges, 2 Iowa, 280.

McAunich v. The Miss. & Mo. R. R. Co., 20 Iowa, 342.

2. Counsel contend that the complaint being drawn under section two of the act, no conviction can follow; that if any violation of the law be found, it is of section one and not of section two of the act; that, therefore, the complaint was drawn under the wrong section.

This contention cannot be sustained. It is plain from the reading of these sections that the legislature intended that all fermented vinegar should come up to the required standard, whether made from fruit or grain.

3. The defendant contends that the act is unreasonable and therefore void as beyond the police power of the State, in that the test for cider vinegar in regard to solids is arbitrary, unscientific and not calculated to accomplish the end sought by the legislature, viz.: To protect the public health against spurious vinegar; that such test is no test, because:

a. Said solids and ash are indifferent ingredients of vinegar from a hygienic standpoint.

b. Their comparative absence or presence is not an essential ingredient of pure apple cider vinegar.

c. A vinegar can be manufactured which will satisfy the requirements of the statute and yet contain no materials from apples or the product of apples.

d. A pure apple cider vinegar is frequently made which is below the requirements of the statute in solids and ash.

e. The less proportion of solids is a proof of greater purity in the vinegar and of its better keeping qualities.

These questions might very properly be addressed to the legislature, but are matters with which the court has nothing to do. It is not a part of the functions of the court to investigate the facts entering into questions of public policy merely. Under our system that power is lodged in the legislative branch of the government. It belongs to that branch to determine primarily what measures are appropriate or needful for the protection of the public morals, the public health or the public safety.

Barton v. McWhinney, 85 Ind., 481.

Mulger v. Kansas, 123 U. S., 660.

Powell v. Pennsylvania, 127 U. S. 685.

In *People v. Snowberger*, 113 Mich. 92, it was said by this court: "The act may work hardship in many cases, but that question is one to be addressed to the legislature and not to the courts."

The question of the reasonableness of the acts found in many states

relative to the sale of milk below a certain standard has been frequently raised in the courts, and the acts upheld.

In *Com. v. Evans*, 132 Mass. 11, the court passing upon such a statute said: "The intention of the legislature and the practical operation of this section in connection with the third section is to provide that it shall be unlawful to sell milk containing less than thirteen per centum of milk solids. This belongs to the class of police regulations designated to prevent frauds and to protect the health of the people, which it is within the constitutional power of the legislature to enact."

In *State v. Smith*, 14 R. I. 100, the court said: "It was the purpose of the statute to prohibit, not only the dealing in milk which had been adulterated, but also in milk of such inferior quality as to fall below the standard named in section three. It is equally a fraud on the buyer, whether the milk which he buys was originally good and has been deteriorated by the addition of water or whether in its natural state it is so poor that it contains the same proportion of water as that which has been adulterated." See also:

State v. Newton, 45 N. J. L., 469.
Bertholf v. O'Reilly, 74 N. Y., 509.
State v. Campbell, 64 N. H., 403.
10 Am. St. Rep., 419.

But counsel contend that the reasonableness of this act is a question of fact for the jury to determine from the expert chemical evidence.

This question is neither for the court nor the jury to determine. In *People v. Clipperly*, 101 N. Y. 634, that very question was discussed and decided adversely to the claim here. It was said: "The defendant takes the broader ground that the legislature cannot under the constitution prohibit the sale of milk drawn from healthy cows which in its natural state falls below standard fixed by the act, unless such milk, or the articles made from it, are in fact unwholesome or dangerous to public health. How is that question of fact to be determined? The court cannot take judicial notice whether milk below the standard is or is not unwholesome or dangerous to public health. Is that to be a question for the jury? If so, the court must charge a jury in each case that if they find milk below that standard to be unwholesome, then the statute is constitutional; if they find it to be wholesome, then the statute is unconstitutional. Evidently a constitutional question cannot be settled, or rather, unsettled in that way. The constitutionality would vary with the varying judgments of juries."

In the emery wheel case before us, in *People v. Smith*, 108 Mich., p. 534, a somewhat similar question was discussed. It was said: "If the courts find the plain provisions of the constitution violated, or if it can be said that the act is not within the rule of necessity in view of facts of which judicial notice may be taken, then the act must fall; otherwise it should stand."

See also:

People v. Girard, 145 N. Y., 109.
(45 Am. St. Rep. 595.)

4. Counsel also contend that defendant was not allowed, nor could it obtain, a sample of the vinegar in question for analysis, and was deprived of the right to produce evidence as to the amount of solids in the vinegar; and was thus deprived of property without due process of law.

The record shows that the defendant was not prevented from getting a sample of the vinegar by any person interested in the prosecution of the suit. The record shows that the only effort it made to get such sample was a letter written to Mr. Owens who had bought and paid for the vinegar, requesting him to return it, to which the defendant received no reply, and it does not appear that Mr. Owens had any of the vinegar left at that time. No sample was left with the defendant by the prosecution; nor was this necessary.

Com. v. Coleman, 157 Mass., 460.

5. This statute forbids the manufacture and sale of vinegar not in compliance therewith; and persons manufacturing or selling vinegar below the standard do so at their peril. It is no defense that the person so manufacturing or selling vinegar below the standard has no knowledge that it is not within the standard prescribed.

People v. Snowberger, 113 Mich., 86; 71 N. W. R., 497.

We have examined the other questions raised, but do not deem it necessary to discuss them. They relate mostly to offers of testimony which the court below ruled out; and, we think, properly.

The testimony was uncontradicted that the vinegar sold was not in compliance with the statute. The sale was admitted.

The court was not in error in directing the verdict. The conviction must be affirmed.

Grant, C. J., did not sit. The other justices concurred.

PEOPLE v. DETTENTHALER.

GROSVENOR v. JACKSON CIRCUIT JUDGE.

(Opinions filed December 6, 1898.)

Constitutional Law—Passage of Act Without Enactment Clause—Constitutional Provision Mandatory—Addition of Clause by Governor—Act 76, Laws of 1897, Invalid.

1. The provision in the Michigan State constitution, found in Sec. 48 of Art. IV., that all laws shall be styled, "The People of the State of Michigan enact," is mandatory and the passage of an act without the enactment clause renders the act invalid.
2. The addition of the enacting clause by the Governor before affixing his signature will not render the law valid which was passed without an enactment clause.

3. Act No. 76, Laws of 1897, being "An act to prevent deception in the manufacture and sale of imitation butter" held to be invalid because of the passage of the act without an enactment clause was not rendered valid by the addition of such clause by the Governor before affixing his signature to the act.

Error to the superior court of Grand Rapids; Edwin A. Burlingame, judge.

Exceptions taken by Frank J. Dettenthaler from a conviction of a violation of the pure food law.—Reversed and no new trial.

Frank D. Rodgers, Prosecuting Attorney, (Rodgers, McDonald & Corwin of counsel), for the people.

Rood & Hindman, and E. F. Sweet, for respondent.

Certiorari by Elliot O. Grosvenor, Dairy and Food Commissioner, to review the action of the Jackson circuit judge in denying a mandamus. Affirmed.

John G. Hawley and Benn M. Corwin, for relator.

Rood & Hindman and E. F. Sweet, for respondent.

Hooker, J.: These cases involve the validity of Act No. 76, Public Acts, 1897, which is as follows:

"An act to prevent deception in the manufacture and sale of imitation butter."

Section 1. The People of the State of Michigan enact, That no person, by himself or his agents, or servants, shall render or manufacture, sell, offer for sale, expose for sale, or have in his possession with intent to sell, any article product or compound made wholly or in part out of any fat, oil or oleaginous substance or compound thereof, not produced from unadulterated milk or cream from the same, which shall be in imitation of yellow butter produced from pure unadulterated milk or cream from the same: Provided, That nothing in this act shall be construed to prohibit the manufacture or sale of oleomargarine in a separate and distinct form, and in such manner as will advise the consumer of its real character, free from coloration or ingredient, that causes it to look like butter.

Sec. 2. Whoever violates any of the provisions of section one (1) of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty dollars, nor more than five hundred dollars, and the costs of prosecution, or by imprisonment in the county jail, or State House of Correction and Reformatory at Ionia, for not less than six months nor more than three years, or by both such fine and imprisonment in the discretion of the court for each and every offense.

Approved April 15, 1897.

The evidence in the first entitled cause shows that the defendant was convicted of the alleged offense of selling oleomargarine in contravention of this act.

In the other a complaint was made of a similar act to a justice, who refused to issue the warrant, and on application the circuit court denied a mandamus to compel it. The cases raise substantially the same questions, and were argued, and will be considered together. The validity of the law is questioned. The record shows that this was a senate

bill and passed the senate without the constitutional enacting clause. The records of the house show that the bill was reported by the committee on agriculture and the committee of the whole, without amendment, and with the recommendation that it be passed. Under the head of "third reading of bills upon passage," the record of the house shows that "pending the third reading of the bill, Mr. Chamberlain moved that the bill be recommitted to the committee of the whole, which motion did not prevail. The bill having been read a third time, and the question being upon its passage pending the taking of the vote, Mr. Graham demanded the previous question. The demand was seconded. The question being, "Shall the main question be now put?" The same was ordered. The bill was then passed, a majority of all the members elect voting therefor, by yeas and nays, as follows: * * * yeas 56, nays 19." As this is the only time the bill was before the house, we must find that the bill passed the house without an enacting clause, unless the contrary can be shown by other evidence. Counsel undertook to show that it was amended in this particular, by the records of the senate, and the testimony of the clerk of the house. The evidence is in brief, that previous to the passage of the bill in the house the clerk noticed the absence of the enacting clause, and brought it to the attention of the house, and said that he would enter one, and accordingly wrote the words in the original bill, i. e., the one which was then before the house. He did not testify that the house took any action upon it, or that any record was made of it.

The senate record shows that the bill was subsequently returned to the senate, accompanied by a letter from the clerk of the house, reading as follows:

"House of Representatives.

"Lansing, April 7, 1897.

"To the president of the Senate:

"Sir—I am instructed by the House to return to the Senate the following bill: Senate bill No. 6, file No. 24, entitled

"‘A bill to prevent deception in the manufacture and sale of imitation butter’ and to inform the Senate that the House has amended the same as follows: By inserting in line 1, Section 1, after the words ‘Section 1,’ the words ‘The People of the State of Michigan enact.’

Very respectfully,

"LEWIS M. MILLER,

"Clerk of the House of Representatives.

"In the passage of which, as thus amended, the House has concurred by a majority vote of all the members elect."

It further appears that the senate concurred in such amendment.

We must determine, therefore, whether the house is shown to have amended the bill by inserting an enacting clause and if not whether the law is valid without it.

The most that can be claimed is that there is oral testimony, that the clerk announced its absence and stated that he would supply it. Inferentially perhaps we may say that there was no objection made, but the evidence is silent as to what, if anything, occurred. There is nothing but this inference of silence which imports acquiescence in the

amendment. There is nothing to show definite action by the house which alone had power to amend the bill before it. So that if the clause is essential to the validity of the act we need not discuss the propriety of admitting parol evidence to prove an amendment which should be shown by the record if one was authorized.

See *Attorney General v. Rice*, 64 Mich. 391.

Hart v. McElroy, 72 Mich. 446.

Sackrider v. Supervisors, 79 Mich. 66.

Is the constitutional enacting clause a requisite to a valid law? This must depend upon whether the constitutional provision is to be considered a mandatory provision or directory merely.

See Constitution, Art. IV., Sec. 48.

Among the authorities cited by the relator in support of his contention, is that of *Swann v. Buck*, 40 Miss. 268. The constitutional provision is similar to ours, and it was held that a substantial compliance was sufficient. In that case the style of the resolution was: "Resolved by the legislature of the State of Mississippi." The court was unable to discover a previous judicial decision of the question, but quoted Mr. Cushing to the effect that the prescribed "form must be strictly pursued, and that no equivalent language will be sufficient," and while declining to accept his rule said: "It is necessary that every law should show on its face the authority by which it is adopted, and promulgated, and that it should clearly appear that it is intended by the legislative power that enacts it that it should take effect as a law. These conditions being fulfilled all that is absolutely necessary is expressed. The word 'resolved,' is as potent to declare the legislative will, as the word 'enacted.'"

The case of *McPherson v. Leonard*, 29 Md. 377, held that the provision of the constitution of Maryland was directory, and that the omission of the words, "by the general assembly of Maryland," did not render the law invalid. The question appears to have been treated as a new one.

The case of *Cape Girardeau v. Riley*, 52 Mo. 427, follows the Maryland case, in holding the provision directory; the court saying that after diligent search, no case holding to the contrary had been found. In this case, like the one before us, the entire enacting clause was wanting. In this connection we may add that previous decisions of the same court, holding the provision that writs should run in the name of state, was directory, were given weight. In our State a contrary holding will be found.

See *Forbes v. Darling*, 94 Mich. 621.

There are, however, cases which take a contrary view of the law, and adhere to the doctrine asserted by Mr. Cushing, and the late Mr. Justice Cooley, in his work on constitutional limitations, 6 Ed., p. 93, viz.:

"But the courts tread upon very dangerous ground when they venture to apply

the rules which distinguish directory and mandatory statutes to the provisions of a constitution. Constitutions do not usually undertake to prescribe mere rules of proceedings, except when such rules are looked upon as essential to the thing to be done; and they must then be regarded in the light of limitations upon the power to be exercised. It is the province of an instrument of this solemn and permanent character to establish those fundamental maxims and fix those unvarying rules by which all departments of the government must at all times shape their conduct, and if it descends to prescribing mere rules of order in unessential matters, it is lowering the proper dignity of such an instrument, and usurping the proper province of ordinary legislation. We are not, therefore, to expect to find a constitutional provision which the people, in adopting it, have not regarded as of high importance, and worthy to be embraced in an instrument, which, for a time at least, is to control alike the government and the governed, and to form a standard by which is to be measured the power which can be exercised as well by the delegates as by the sovereign people themselves. If directions are given respecting the times or modes of proceeding in which a power should be exercised, there is at least a strong presumption that the people designed it should be exercised, in that time and mode only; and we impute to the people a want of due appreciation of the purpose and proper province of such an instrument, when we infer that such directions are given to any other end. Especially when, as has already been said, it is but fair to presume that the people in their constitution have expressed themselves in careful and measured terms, corresponding with the immense importance of the powers delegated, and with a view to leave as little as possible to implication."

There are some cases, however, where the doctrine of directory statutes has been applied to constitutional provisions, but they are so plainly at variance with the weight of authority upon the precise points considered that we feel warranted in saying that the judicial decisions as they now stand do not sanction the application.

The question arose in Washington territory over a law fixing the seat of government, and the opinion of Cushing was quoted and followed. 1 Wash. Ter. 116. The case of *Nevada v. Rogers*, 10 Nevada 250, decided in 1875, did the same. An extended discussion of the subject will be found in that case, in support of the proposition that the language of the constitution should be literally followed.

The opinion concludes with the following pertinent and emphatic language:

"Our constitution expressly provides that the enacting clause of every law shall be 'The People of the State of Nevada, represented in senate and assembly, do enact as follows.' This language is susceptible of but one interpretation. There is no doubtful meaning as to the intention. It is, in our judgment, an imperative mandate of the people in their sovereign capacity to the legislature, requiring that all laws to be binding upon them shall, upon their face, express the authority by which they were enacted, and as this act comes to us without such authority appearing upon its face, it is not a law."

The case of *the State v. Patterson*, 98 N. C. 662, is strong in its condemnation of the practice of treating constitutional requirements as directory. The case of *Powell v. Jackson*, 51 Mich. 130, is not in point, as the bill was duly and seasonably amended, if we may accept the statement of the briefs of the counsel and the syllabus.

The trend of the weight of the authority is in our opinion against the relator's contention.

It is urged with some plausibility that the insertion of this provision previous to the signature by the Governor is a sufficient compliance with the constitution, from which we understand the claim to be made

that although the enacting clause was wanting when the bill came to the Governor it might have been supplied by him. But it is thought that this proposition is tenable only upon the assumption that the constitutional provision is directory merely. The Governor has no power to make laws. The legislative power is in no part vested in him, being by Sec. 1, Article IV, of the constitution, vested in the senate and house of representatives. It is not the design of the constitution that he should legislate. His office is a check upon the legislature and he may compel a reconsideration of a bill by seasonably returning it to the appropriate house with his objections to it, and when the legislature has adjourned his neglect to sign it prevents it from becoming a law, but he has not the slightest power in framing the law. Indeed, it is a fundamental principle in American constitutions that the executive shall not make laws. The following language from the opinion in the case of *State of Nevada v. Rogers*, 10 Nev. 250, is apropos to this subject:

"Without the concurrence of the senate the people have no power to enact any law. Every person at all familiar with the practice of legislative bodies is aware that one of the most common methods adopted to kill a bill and prevent its becoming a law, is for a member to move to strike out the enacting clause. If such motion is carried the bill is lost. Can it be seriously contended that such a bill, with its head cut off, could thereafter by any legislative action become a law? Certainly not. The certificates of the proper officers of the senate and assembly, that such an act was passed in their respective houses, do not, and could not impart vitality to any act which, upon its face, failed to express the authority by which it was enacted."

This being so, the only justification for the insertion of the enacting clause by the Governor is to be found in the assumption that it is a clerical omission of an unimportant matter and it might as well be held that one of the houses, or a clerk, or even the printer of the laws, might make the correction, as that the Governor might do it.

Some of the states have sustained laws without enacting clauses, but we do not know of one that has made their validity depend upon the unauthorized action of some officer or person. They have preferred to rest their action upon the well recognized distinction between mandatory and directory provisions. If the provision is mandatory that the law shall have a prescribed style and the making of laws is confined to the legislative branch of the government, it cannot be consistently held that omissions of essential parts of a law may be supplied and corrections made by persons without authority; and the public necessities should be much greater than in the present case, before such a proposition should be seriously considered. If on the other hand there is warrant for treating the provision as directory, a much less dangerous precedent is established. But as has been shown, the weight of authority forbids it, and in our opinion it will be an unfortunate day for constitutional rights when courts begin the insidious process of undermining constitutions by holding unambiguous provisions and limitations to be directory merely, to be disregarded at pleasure. In the present case it will be much better that the legislature shall correct its mistake, than that the courts shall sanction the irregular correction.

We are therefore constrained to hold that the law under discussion

is void, and in the certiorari case the order is affirmed, in that of Detten-thaler the conviction is reversed and no new trial ordered. The other justices concurred.

GROSVENOR v. DUFFY.

(Opinion filed September 18, 1899.)

Pure Food Law—Sale of Oleomargarine Colored to Imitate Butter—Constitutionality of Act.

The sale of oleomargarine colored with a harmless substance to imitate June butter, but which is sold and purchased as oleomargarine, is not in violation of section 3 of Act 118 of the Public Acts of 1897, being an act to prohibit and prevent adulteration, fraud and deception in the manufacture and sale of articles of food and drink.

Certiorari to review the action of the Washtenaw circuit judge in refusing the application of Elliot O. Grosvenor, Dairy and Food Commissioner, for mandamus to compel John L. Duffy, justice of the peace, to issue a warrant. Affirmed.

Smedley & Corwin, for relator.

John J. Speed and J. P. Lee, for respondent.

The relator presented to a justice of the peace a complaint in writing, charging that "Casper Rinsey did unlawfully offer and expose for sale, and did unlawfully sell and deliver to said Elliot O. Grosvenor, a large quantity, to wit, one pound of oleomargarine, which was then and there an article of food intended to be eaten by man, and which was then and there adulterated within the meaning of Act No. 193 of the Public Acts of Michigan for the year 1895, as amended by Act No. 118 of the Public Acts of Michigan for the year 1897, in this, to wit: that said oleomargarine was then and there an imitation of another article of food, to wit: an imitation of a rich June butter; and said oleomargarine had been and was then and there colored, whereby inferiority was concealed and by which means it was made to appear better and of greater value than it really was, to wit, in this: That it was thereby made to appear like butter of a grade which was then and there of a greater value than the said oleomargarine; that the said oleomargarine was labeled 'oleomargarine' and stamped with the seller's name; and that the tub and wrapper which contained the same bore the name and address of the manufacturer and was distinctly labeled oleomargarine."

"Said complainant on his oath aforesaid, further says, that he called for oleomargarine, and that the said oleomargarine was sold to him as oleomargarine the same as to an ordinary customer, freely and without objection, and that for this reason he did not take the steps required by section 6, Act No. 154 of the Public Acts of Michigan for the year 1897."

The justice refused to entertain the complaint and issue a warrant, whereupon the relator applied to the circuit court for Washtenaw county for the writ of mandamus to compel the justice to issue a warrant and proceed to hear the case. The circuit court refused the writ and the case is brought to this court by certiorari for review.

Grant, C. J. (after stating the facts). The title of the act reads "An act to prohibit and prevent adulteration, fraud and deception in the manufacture and sale of articles of food and drink." Sec. 3, as amended by Act No. 118, Public Acts 1897, so far as it applies to this case, reads:

"An article shall be deemed to be adulterated within the meaning of this act: * * *

"Fourth—If it is an imitation of, or sold under the name of another article. * * *

"Sixth—If it is colored, coated, polished or powdered, whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is.

"Seventh—If it contains any added substance or ingredient which is poisonous or injurious to health: Provided, That nothing in this act shall prevent the coloring of pure butter: And provided further, That the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles or ingredients of articles of food, if each and every package sold or offered for sale, bear the name and address of the manufacturer and be distinctly labeled under its own distinctive name, and in a manner so as to plainly and correctly show that it is a mixture or compound, and is not in violation with definition fourth and seventh of this section."

It is not claimed that the sale made by Rinsey violates subdivision seven. The act charged in the complaint is neither adulteration, fraud nor deception under any definition of these words to be found in any dictionary. Adulteration is "the act of corrupting or debasing, the act of mixing something impure or spurious with something pure or genuine, or an inferior article with a superior one of the same kind."

Bouv., L. D., 126.
Century Dictionary.

Counsel do not urge that it comes within the word "fraud" or "deceit." Neither is it urged that the article is made to appear of greater value than it really is. It is not claimed that the coloring matter used is in the least deleterious. The law permits its use to color butter. Counsel rely upon *People v. Snowberger*, 113 Mich. 86. That case is not in point. The gravamen of the offense there was that the article of food was damaged, inferior, its inferiority concealed, and it was made to appear of greater value than it really was.

This brings us to the only question we need to determine, viz.: Is the title to the act broad enough to include the sale complained of? Would any person reading the title to the bill in the legislative journals, or elsewhere, suppose that the bill would make criminal an act which

in itself was entirely harmless, honest, innocent and contained no element of wrong-doing? Or that it would change the well known definition of a word so as to include within it things which were in no sense akin to it and which could only be included in it by the most arbitrary legislative enactments? Would a manufacturer of, or dealer in butter or oleomargarine, be notified by the title that the harmless coloring of either was not only to be prohibited but to be punished by fine or imprisonment or both? There can be but one answer to these questions. When the legislature attempts to change definitions and to make acts criminal which per se are innocent and contain no element of wrong, there must be something in the title to show such purpose or object under Sec. 20, Art. 4 of the constitution. The title contains not even an intimation that an entirely innocent act is to be made a crime. It follows that this part of the act is void.

Bissel v. Wayne Probate Judge, 58 Mich. 237.
 Northwestern M'fg. Co. v. Wayne Circuit Judge, Id., 381.
 McKellar v. Detroit, 57 Mich., 158.

This statute is assailed as unconstitutional upon other grounds. This disposal of the case renders it unnecessary to discuss them. How far the legislature may go, under the police power inherent in the State in prohibiting and punishing acts which in themselves are perfectly harmless, would be an interesting subject of inquiry, but as it is not necessary to a disposal of the case we decline to enter upon it.

Judgment affirmed. The other justices concurred.

PEOPLE v. SKILLMAN.

(Opinion filed March 4, 1902.)

Pure Food Law—Section 5022 C. L. Construed—Action Against Traveling Salesman.

A travelling salesman for a wholesale grocery firm, residing out of the State, took an order in this State for pure fruit jelly and forwarded the order to his employers. The order was filled with imitation fruit jelly. Information was filed against the salesman under section 5022 C. L., regulating the manufacture and sale of imitation fruit jellies. *Held*, That respondent was not guilty of violating the terms of the statute.

Error to the circuit court for Muskegon County. Fred J. Russell, judge.

Appeal of John Skillman from a conviction under the pure food law. New trial ordered.

Charles B. Cross, Prosecuting Attorney, for the people.

Elliot O. Grosvenor and Smedley & Corwin, for respondent.

Moore, J.: An information was filed against the respondent which,

omitting the formal parts, reads as follows: "That one John Skillman heretofore, to wit, on the sixteenth day of September, A. D., 1901, at the city of Muskegon, in the county of Muskegon aforesaid, did unlawfully offer for sale and did sell to Albert Towle a large quantity, to wit: a certain compound under the name of Quince Jelly which was then and there adulterated within the meaning of the Act No. 193 of the Public Acts of the State of Michigan of the year 1895, as amended by Act No. 118 of the Public Acts of the State of Michigan of the year 1897, as amended by Act No. 117 of the Public Acts of the State of Michigan of the year 1899, in this, to wit: That said compound was then and there made and composed in part of glucose, starch and other substances, and was then and there colored in imitation of fruit jelly contrary to the form of the statute."

After the testimony was all in, a motion was made asking the judge, for various reasons, to direct a verdict in favor of respondent. This motion was overruled. The case was submitted to the jury which returned a verdict of guilty.

A great many errors are assigned. We think some of them which we shall discuss are well taken, but as the case if ever tried again, will not present the same questions now presented by counsel we deem it unnecessary to pass upon all the questions argued by them in the briefs.

To sustain the case of the people testimony in substance as follows was introduced: It was shown the respondent had for some years been a traveling salesman in the employ of Reid, Murdock & Company of Chicago, that he solicited an order from Mr. Towle, a grocer in Muskegon, that Mr. Towle gave him an order for a case of assorted pure fruit jelly. Mr. Skillman did not have the goods with him, but reduced the order to writing in the presence of Mr. Towle, at his store, and forwarded it to the house in Chicago. It is as follows:

"Reid, Murdock & Co., Chicago,
Sept. 12, 1901.

Name. Albert Towle.

Town: Muskegon.

State: Michigan.

Ship by Barry Line.

Salesman: Skillman.

1 c P. F. Jelly Med. Asst.....	100
1 c P. F. Jelly Med. Currant.....	100
60 days."	

"1 c P. F. Jelly Med. Asst." was explained to mean one case pure fruit jelly medium size assorted glasses. Mr. Towle testified Mr. Skillman claimed it was pure fruit jelly for which he took the order, and that was what he intended to buy. It was not shown that respondent had anything further to do with the transaction than as above stated. Later a case of goods was received from Reid, Murdock & Company and testimony was given tending to show that a tumbler of this jelly was sold to Mr. Bennett, inspector of the Dairy and Food Department of Michigan, and by him forwarded to the State Analyst, where it is claimed upon analysis it was shown to be a mixture of fruit juice, glucose, starch and coloring-matter. Upon the cross examination of Mr. Towle the following occurred:

"Q. Did you give Mr. Skillman more than one order for fruit jelly about this time? A. Well, he had two or three orders I think, two at least.

"Q. Two orders? A. One of them might have been ordered by mail.

"Q. Now you received two consignments of fruit jelly from the orders you had given to Mr. Skillman? A. I think so, yes, sir.

"Q. Upon which one of these orders did you receive this particular tumbler of jelly that you afterwards sold to Mr. Bennett? A. I couldn't say. The one that he bought was out of that order I think. (Witness pointing to order exhibited.)"

The defense claimed that the label "pure fruit jelly" placed upon the tumbler analyzed was put there by mistake. It was their claim that Reid, Murdock & Company dealt in two kinds of jelly, those made out of pure fruit and those made in imitation of pure fruit, and that when the imitation was sold in Michigan and certain other states their instructions were to label them "imitation," and that these instructions were furnished in writing to their agents, including the respondent, and they offered testimony tending to prove this claim. The written instructions were also offered in evidence, but with the testimony offered were excluded by the court.

Among other requests offered by the respondent was the following:

"Under the undisputed evidence in this case there is nothing to show that the respondent offered to sell any jelly in violation of any statute of this State, but, on the contrary, it is shown that respondent offered to sell strictly pure fruit jelly and sent such an order to Reid, Murdock & Company, of Chicago, Illinois, and the charge in the information for selling and offering to sell adulterated jelly is not sustained by the evidence, and your verdict should be not guilty."

The judge refused to give this request, but charged the jury, "It is recognized by the legislators and is a matter of common knowledge that many of the wholesalers that are doing business in Michigan are not residents of this State, so the legislature saw fit to make a law where a man solicited the sale of pure jellies, took an order for the sale of pure jellies, and in response to that order and offer, a different class of goods was furnished, that the party should be guilty of violating this particular law. In other words, instead of that order or offer and the furnishing of goods delivered to the party by a party who might be a non-resident of the State, that it should relate to the man who actually made the offer, the man who actually took the order for the furnishing of this particular article. The people claim that this is the matter in which this defendant here is liable."

This statement of the law is sought to be justified by *People v. Snowberger*, 113 Mich. 86, and *People v. Grocer Co.*, 118 Mich. 604, 71 N. W. 497, 67 Am. St. Rep. 449, 77 N. W. 315. A reference to these cases will show that the respondent in each of them admitted making the sale of the goods. In this case the respondent denies that he sold any goods coming within the provisions of the statute. Giving the only interpretation to the testimony as it appears in the record which can be fairly given to it shows Mr. Towle was solicited to give an order for pure fruit jelly. He gave such an order. It was reduced to writing

and in the writing the jelly was described as pure fruit jelly. As before stated the only connection of the respondent with the transaction as shown by the record is the taking of an order for an article not within the terms of the statute and forwarding it. This does not constitute an offense. It might as well be urged that if a traveling salesman takes an order for Michigan beet sugar and forwards a written order for such sugar, and if the house, instead of filling the order as written, sends glucose with a label upon the package containing it calling it Michigan beet sugar the salesman would be guilty of an offense. This we do not understand to be the law. Upon the case as made the circuit judge should have directed a verdict of not guilty. *People v. Howard*, 50 Mich. 242, 15 N. W. 101.

The verdict is set aside and a new trial ordered.

Long, J., did not sit. The other justices concurred.

THE PEOPLE v. MORSE.

(Opinion filed June 3, 1902.)

Pure Food Law—Sales by Agents—Criminal Responsibility for Acts of Principal.

1. A traveling salesman who in good faith takes an order for "pure pepper," which is filled by his principal with impure pepper, is not guilty of a violation of Public Acts 1895, No. 193, forbidding the sale of impure foods.
2. Public Acts 1895, No. 193 (Pure Food Laws) Sec. 17, providing that the taking of an order for future delivery of any of the articles covered by the "act shall be deemed a sale, within the meaning of the act," does not make an agent absolutely responsible for the acts of his principal in filling the orders taken by such agent, and an order by the agent which is filled by the principal as an entirety may be, under the act, a sale of impure food, as to the principal, and yet not such as to the agent.

Error to circuit court, Muskegon county; Fred J. Russell, judge.

John W. Morse was convicted of a violation of the pure food law, and he brings error. Reversed.

Underwood & Umlor, for appellant.

Chas. B. Cross, Prosecuting Attorney, and George S. Lovelace, Assistant Prosecuting Attorney, for the people.

Hooker, J.: The brief filed on behalf of the people states that the case is similar to that of *The People v. Skillman*, 8 Detroit Legal News, 1090, 89 N. W. 330, and in effect concedes that the case must be reversed if we adhere to our former decision.

The defendant took an order for some pepper, as and for pure pepper, to be shipped to a dealer in Muskegon, by defendant's principal, a wholesaler in Chicago. The pepper when sent was not pure.

It is insisted that the *Skillman* case is at variance with the weight of authority elsewhere, and contrary to our own cases, in which it

is said that we have held that a guilty intent on the part of a vendor, is not essential to an offense, under the pure food law (Public Acts 1895, No. 193). It is further said that in the decision in the Skillman case, section seventeen of the act must have been overlooked or considered unconstitutional.

The transaction in which the order was taken did not involve an immediate delivery of pepper, then and there present. It is not shown that the sample, if there was one, was the same as the pepper subsequently sent, or that it was in the least impure. If it be conceded that the agent acted in good faith, and we understand that it is not questioned, he took an order for pure goods, and in doing that certainly committed no offense. It is now urged that the exigencies of the enforcement of this law are such, that we should hold that this innocent and lawful action, may be made a crime by the subsequent act of the principal, either intentional or inadvertent, in departing from, instead of performing the contract which his agent had innocently made. We think this is not so, and we are also of the opinion that this does not necessarily do violence to section seventeen. This transaction, as an entirety, may have been a sale of impure pepper under the statute as to the principal, and not as to the agent. If the order had been taken, with knowledge on the part of the agent of a practice to send impure pepper on such orders, a different question would be presented.

The judgment is reversed and a new trial ordered.

Long, J., did not sit. The other justices concurred.

PEOPLE v. ROTTER.

(Opinion filed June 24, 1902.)

Food—Oleomargarine Act—Constitutional Law—Statutes—Title—Object.

1. Public Acts 1901, No. 22, entitled "An act to prevent deception in the manufacture and sale of imitation butter," which in addition to forbidding sale of imitation butter, prohibits sales of colored oleomargarine, is not, on that account, open to the objection that the object is not expressed in the title, as required by Const. Art. 4, Sec. 20.
2. The act is not in contravention of the fourteenth amendment of the federal constitution.
3. The act is a valid exercise of the police power.

Error to circuit court, Emmet county; Frank Shepard, judge.

George W. Rotter was convicted of selling colored oleomargarine, and brings error. Affirmed.

Smedley & Corwin, Sears, Meagher & Whitney (James F. Meagher and Kay Wood, of counsel), for appellant.

Horace M. Oren, Attorney General, and Matthew F. Guinon, Prosecuting Attorney, for the people.

Hooker, C. J.: At its last session, the legislature passed an act under

the title, "An act to prevent deception in the manufacture and sale of imitation butter." Public Acts 1901, No. 22.

Section 1 of said act provides that:

"No person, by himself or his agents or servants, shall render or manufacture, sell, offer for sale, expose for sale, or have in his possession with intent to sell, any article, product or compound made wholly or in part out of any fat, oil or oleaginous substance or compound thereof, not produced from unadulterated milk or cream from the same, which shall be in imitation of yellow butter produced from pure unadulterated milk or cream of the same: Provided, That nothing in this act shall be construed to prohibit the manufacture or sale of oleomargarine in a separate and distinct form, and in such manner as will advise the consumer of its real character, free from coloration or ingredient that causes it to look like butter."

Section 2 prescribes a penalty for the violation of the act.

The defendant was a grocer in Emmet county, and is shown to have sold a package of oleomargarine, which by an analysis was proven to have contained artificial coloring matter, and that said oleomargarine was not made wholly from unadulterated milk or cream from the same, and that it was made in imitation of yellow butter, produced from unadulterated milk or cream from the same. The court was asked to direct a verdict of not guilty upon the grounds:

1st. That the object of the act was not expressed in the title, as required by section 20 of article 4 of the constitution of this State;

2d. That the act violates the fourteenth amendment of the constitution of the United States, and article 6, section 32, of the constitution of this State;

3d. That it was not within the police power of the State.

The evidence conclusively shows that no deception was used in selling the oleomargarine, and there is nothing to indicate that there was any harmful ingredient therein, but that, on the contrary there was not such ingredient. The defendant was convicted, and the case is here on exceptions before sentence.

It is contended that the title to the act indicates that the act was designed to prevent deception in the manufacture and sale of imitation butter, while the act attempts to go further and prevent all sales of such colored oleomargarine.

If oleomargarine colored yellow, closely resembles yellow butter, made from milk or cream, it cannot reasonably be said not to resemble or imitate yellow butter. Butter is a well known commodity. From time immemorial it has had but one origin, viz.: from the churning of milk or cream. Whatever may be said of the possibility of making a product from other compounds than milk or cream that shall closely resemble or be chemically identical with butter, the world has but one understanding of what is meant by the word "butter," and we must assume that such is the sense in which our legislature used the term. Compiled Laws, Sec. 50, Sub. 1.

A fair inference from this statute is that the legislature undertook to prevent deception, by preventing the sale of any yellow oleomargarine, and it undertook to accomplish this by the most effective means, viz.: by prohibiting the coloring of oleomargarine yellow, thereby avoiding the embarrassment which would otherwise arise from the

necessity of proving in each case, that deceit was used in selling it, as and for butter. We think this is fairly within the title, whatever must be said of the other points raised. We are referred to the case of *N. W. Mfg. Co. v. Chambers*, 58 Mich. 381, 25 N. W. 372, 55 Am. Rep. 693, as conclusive upon this question, in which case it is said that "all that could be done under such a title would be to prohibit and prevent sale of such articles under false pretenses." We are of the opinion that this language is too restrictive, and that it is at variance with the settled doctrine in this State, that any provision, naturally calculated to accomplish the object expressed in the title may be included in the act.

See:

Soukup v. VanDyke, 109 Mich., 681.
People v. Worden Grocer Co., 118 Mich., 607.

The case cited was rightly disposed of upon another ground, and it is possible that the language above quoted should be considered a dictum. Moreover, the cases are distinguishable for whereas, that act attempted to prevent all sales of imitation butter, and was therefore perhaps inconsistent with the title, which apparently contemplated lawful sales, the statute under consideration in the present case, does not prohibit sales of oleomargarine, which is not tainted with the prohibited ingredients.

It is unnecessary to discuss the other points at length for the reason that the uniform trend of judicial opinions is that such laws are valid:

State v. Meyers, 42 W. Va. 825; 35 L. R. A. 844.
New Hampshire v. Marshall, 1 L. R. A. 51.
Powell v. Penna 127 U. S. 678.
People v. Armsberg, 105 N. Y. 113.
Butler v. Chambers, 36 Minn. 69.
People v. Worden Grocer Co., 118 Mich. 604.
People v. Armsberg, 105 N. Y. 123.
State v. Crescent Creamery Co., 86 N. W. 107.
State v. Ball, 46 Atl. Rep. 50.
Commonwealth v. Van Dyke, 13 Pa. Sup. Ct. Rep. 484.
Commonwealth v. McCann, 14 Pa. Supt. Ct. Rep. 221.
Armour Packing Co. v. Snyder, 84 Fed. Rep. 136.
Cap. City Dairy Co. v. State, 22 Sup. Ct. Rep. 120.
Wright v. State, 41 Atl. Rep. 795.

We are of the opinion that the legislature had the power to pass this law, and its wisdom of policy is not for our consideration.

The judgment is affirmed and the court directed to sentence the defendant.

Long, J., did not sit. The other justices concurred.

PEOPLE v. PHILLIPS.

(Opinion filed Sept. 17, 1902.)

Food—Adulteration—Statutes—Oleomargarine—Yellow Butter.

1. The phrase "yellow butter," is used in Act No. 22, Acts 1901, making it an offense to sell or offer for sale oleomargarine colored in imitation of "yellow butter" made from pure milk or cream of the same, means any butter produced from pure milk or cream thereof having a "perceptible shade" of yellow.

Error to circuit court, Kalamazoo county; John W. Adams, judge.

John W. Phillips was convicted of selling oleomargarine, in violation of Act No. 22, Acts 1901, and he brings error. Affirmed.

Frank E. Knappen and E. M. Irish, for appellant.

Sheridan F. Master, Prosecuting Attorney, and Dallas Boudeman, for the people.

Moore, J.: The respondent was convicted of having on hand with intent to sell, and offering for sale oleomargarine, colored in imitation of yellow butter, contrary to the provisions of Act No. 22 of the legislature, passed at the session of 1901.

It is claimed by respondent this law is unconstitutional and is an invalid law. That question was decided in the very recent case of *People v. Rotter*, against the contention of respondent, and need not be discussed here. It is urged as a matter of defense, and we quote from the brief of counsel, "that the statute is only aimed against the imitation of a substance which the legislature recognizes as yellow butter, and

1. The court should take judicial notice that all butter with a trace of yellow in it is not the yellow butter of commerce.

2. That if this is not true as a proposition of judicial notice, and the court cannot know it, then the respondent should have been allowed to prove, if he could, that there was such a usage of commerce.

3. That the statute is vague and indefinite in not defining the elements of the statutory crime it attempts to carve out of an act innocent per se, in that it gives no standard for determining what the color of yellow butter is that is not to be imitated."

The trial judge charged the jury upon that branch of the case as follows:

"It is not necessary in this case for the people to have proved that the respondent himself colored the oleomargarine if you find beyond a reasonable doubt that it was colored. The offense is just as complete, so far as this is concerned, if the respondent purchased oleomargarine colored, as above indicated. The offense as above stated consists of having the oleomargarine colored as before indicated, in his possession, with intent to sell the same, or in exposing it for sale; and if the respondent sold it in the same condition as he bought it, there would be no defense in this case. The respondent, gentlemen of the jury, is not charged in this information with selling this article; and if you find beyond a

reasonable doubt he sold it as claimed by the people in the testimony offered, you may consider this fact on the question of whether respondent had or did not have the article in his possession for the purpose of selling it. And you must not consider it for any other purpose. If you find beyond a reasonable doubt that respondent did sell the article mentioned in the information to the parties claimed by the people, that would satisfy the statute upon the question of intent to sell. It is not necessary in this case to entitle the people to a conviction, that the oleomargarine should have been colored to represent any particular kind of yellow butter. That is, such yellow butter as the statute mentions, and as I have indicated to you the statute mentions. If the coloring was put into it, and by using such coloring the oleomargarine was in imitation of light yellow butter, such as the statute mentions, that is yellow butter produced from pure, unadulterated milk or cream from the same, the offense is committed just the same, as if it had been colored to represent darker yellow butter. If you find it to have been oleomargarine and was colored in such a manner as to be in imitation of any kind of yellow butter, that would satisfy the statute upon the requirement of the question of color. Yellow butter I define to be any butter produced from pure, unadulterated milk or cream of the same having a yellow color.

"It is necessary in order for the jury to convict the respondent, for you to find beyond all reasonable doubt that the article in the package sold was colored in imitation of yellow butter produced from pure, unadulterated milk or cream of the same. If you find beyond a reasonable doubt under the testimony in this case that there was some coloring matter in this article still if you find that there was not enough coloring matter in this article to cause it to look like yellow butter having a perceptible shade of yellow, said butter having been produced from unadulterated milk, or cream from the same, then you must acquit. But if you find beyond a reasonable doubt there was coloring matter in said article and sufficient coloring matter in said article and sufficient coloring matter therein to make it look like yellow butter, having any perceptible shade of yellow, said butter having been made from unadulterated milk or cream from the same, that would be sufficient so far as the requirement of the statute upon the question of coloration is concerned."

We think this was a proper construction of the language used in the statute.

The conviction is affirmed and the case remanded for further proceedings.

Long, J., did not sit. The other justices concurred.

PEOPLE v. JENNINGS.

(Opinion filed April 7, 1903.)

Adulteration of Food—Omission of Ingredients—Coloring Matter—Remarks of Court.

1. There not having been incorporated in the pure food law of 1895 (Public Acts of 1895, p. 358, No. 193), any specific formula for the manufacture of lemon extract, it is proper to resort to the United States Pharmacopoeia formula to determine of what lemon extract consists.
2. The pure food law of 1895 (Public Acts of 1895, p. 358, No. 193), is not intended to prevent manufacturers of articles of food from improving the same, so long as no infringement of the law or spirit of the act defining adulteration takes place.

3. The provisions of Comp. Laws, Sec. 5012, that an article shall be deemed adulterated, "second, if any inferior or cheaper substance or substances have been substituted wholly or in part for it; third, if any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it"—should be read together, and the provision first recited construed as prohibiting the substitution for an essential ingredient of any cheaper or inferior substances.
4. Comp. Laws, Sec. 5012, declaring that an article shall be deemed adulterated, "sixth, if it is colored * * * whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is," does not preclude the use of coloring matter not injurious to health in any way.
5. It is improper for the court to refer to expert testimony as "boughten testimony."

Exceptions from circuit court, Muskegon county; Fred J. Russell, judge.

Charles W. Jennings was convicted of violating the pure food law, and brings exceptions. Reversed.

Charles A. Blair, Attorney General, and Charles B. Cross, Prosecuting Attorney, (Cross, Lovelace and Ross, of counsel), for the people.

Knappen, Kleinhans & Knappen and L. N. Keating, for defendant.

Montgomery, J. This is a prosecution under the Pure Food Law, so-called. The defendant was convicted under an information charging him with selling a compound as a lemon extract which was adulterated within the meaning of Act No. 193, P. A. 1895, and was a compound in imitation of extract of lemon. The respondent was convicted and brings the case up on exceptions before sentence.

The evidence on the trial introduced by the defendant tended to show that lemon oil contains from three to ten per cent citral, so-called, and upwards of ninety per cent of so-called turpenes; that these turpenes represent the oil property; that they are in reality the oil itself freed from the citral; that citral is the principal flavoring and odor-bearing property of lemon oil; that the tendency of turpenes in the oil of lemon is to deteriorate or become rancid by long standing, and that because of this the extract of spirits of lemon in which turpenes appear in usual quantities become turpentiney, both in smell and taste, and that for this reason it is undesirable to have turpenes present; that the turpenes have a biting taste, easily developing a turpentine taste, not the true flavor of the lemon fruit. There was also testimony tending to show that this fact created a demand for turpeneless oils and that turpeneless lemon oils had been manufactured and sold commercially for a considerable time.

On the part of the prosecution the testimony of the chemist of the Pure Food Department was to the effect that taking as a standard of extract of lemon the spirits of lemon as defined by the United States Pharmacopeia formula that the extract produced by the respondent showed no lemon oil present. It further appears that spirits of lemon

made according to the pharmacopoea formula would contain from 25-100 to 35-100 of one per cent of citral. It also appeared that 30 per cent of alcohol appeared in the product made by respondent, and that according to the pharmacopoeia formula 80 per cent was used, and that it cost less to make the extract using but 30 per cent of alcohol than if 80 per cent was used. It was also shown that a trace of coal tar dye was found in the extract made by respondent, but it was conceded that there was nothing whatever injurious in the extract as prepared by Mr. Jennings. The extract sold by respondent was made by what is known as the shaking out process, the purpose being to make an extract that contains no oil and as little alcohol as possible, a product that simply contains the flavoring properties of the lemon oil without the turpenes. This system has been employed by Mr. Jennings and by other manufacturers for the past three years; and it is claimed that all the elements and properties of lemon oil remained except the turpenes, and the testimony tended to show that the complete flavoring qualities are extracted by this process.

The circuit judge charged the jury as follows:

"In 1895 the Legislature of this State, thought it wise to pass a law relative to the adulterations of food and food products. Perhaps there may have been some amendments since that time, but that was the foundation of the law. That law covers lemon extract as it covers all other products that are sold on the market. It seems at the time the law was passed and since that time there hasn't been—there isn't incorporated within that law any special formula for the manufacture of lemon extract. Now, we can hardly say, gentlemen of the jury, that at the time of the passage of that law that the Legislature didn't have some recognized and defined standard by which these essences or extracts should be governed or controlled. I think it would be hardly fair to the Legislature to claim that there wasn't a standard they had in their mind at that time, and for the purposes of this case I will instruct you gentlemen, that at that time and at this time this standard that appears here in the United States Pharmacopoeia is the standard recognized by the legislators of this State and the one to which—the one that is in force so far as it applies to the pure Food Law of this State with reference to that particular product. And if this lemon extract is manufactured in conflict with that formula as I shall hereafter call your attention to it, and you should find from the evidence, why it would be your duty to convict the defendant here.

"By that formula it appears that it is necessary to have five per cent of lemon oil in the lemon extract and that lemon oil shall be cut by a sufficient quantity of alcohol to perform that act. Of course, you know that that means in common parlance it should dissolve the oil. In addition to that, as the evidence tends to show in this case, after those things are put together, the fluid, whatever it might be, would be nearly the color of water. As coloring there may be or should be five per cent of lemon rind, and those ingredients when added together would be lemon extract, and that gentlemen, will be the standard as applied to the Pure Food Law of this State. Now, gentlemen, I don't mean by that statement that lemon extract cannot be manufactured by any other process except by that to which I have called your attention. I don't mean that. It is the claim of the defendant here that he has discovered a process by which he can manufacture lemon extract containing all of the qualities that lemon extract manufactured according to that formula would possess and not have entirely all of the ingredients in the first instance that are provided in the formula. And as I view this case, gentlemen, that is one of the important propositions in connection with this case—that, and the question of coloring—in the judgment of the court is the case, and that all of the testimony in the case here revolves itself about those two propositions.

"It is the claim of the defendant, as I say, he has discovered a process by which he can produce in this lemon extract all the qualities that would be produced by adding alcohol and lemon oil together, and that manufacturing it by that means he produces it chemically by taking a larger quantity of lemon oil and extracting certain parts of it. Now, gentlemen, if you find and are satisfied by the evidence in this case that after this lemon extract was manufactured as defendant here claims he did manufacture it possesses all the qualities in strength and otherwise that it would possess if manufactured according to this formula, he is not guilty under this law. That is, he is not guilty of manufacturing an impure article, unless there are certain other articles that enter into the case to which I call your attention. As I say, in the first instance, it is claimed that according to the formula it should be alcohol and five per cent of lemon oil. Now if by some other process he can manufacture from the lemon oil and alcohol a product that would contain all of the elements that these two elements would contain if so mixed, he would not be guilty so far that would be lemon extract except the color of it.

"It is conceded here by all parties in interest, I think, that the only object of the lemon peel is to produce coloring. But there is another element to which the prosecuting attorney has called our attention. The evidence tends to show, gentlemen, that if this product is produced as claimed here on the part of the defendant, that after production by this process that the product will be nearly white. As I say, if it contained all of the elements of lemon extract, I don't think he would be guilty under this law, and if you are so satisfied, of course, at that point it would be your duty to find a verdict of not guilty unless there is some other matter in which he has violated this law.

"There is another provision of this Pure Food Law that provides that ingredients shall not be colored. In this case it appears that after this fluid substance is produced which he claims is just the same as produced under this formula, that he desires to change it to a lemon color. In other words, he puts in an ingredient which he claims would produce the same effect as this lemon rind. What is the object, gentlemen, or what was the object of Mr. Jennings adding this color? If the object was by any means to make it appear better or of greater value than it really is; if that was the object in adding that product of course it is your duty without any question to find this defendant guilty, because he hadn't any right to add that kind of a product or any other kind of a product to this fluid which he had produced and sell it for lemon extract, because that is a direct violation of one of the provisions of this Pure Food Law."

We think this charge presents fairly three questions for consideration: First, whether the pharmacopoeia formula is to be considered as defining lemon extract; second, if so, whether an omission of ingredients not essential to its purposes as a food product is a violation of the statute; third, whether the instruction relative to the addition of coloring matter should be sustained.

The statute defining what shall be deemed adulteration, so far as it relates to this case, declares that an article shall be deemed adulterated when: "First, if any substance or substances have been mixed with it, so as to lower or depreciate or injuriously affect its quality, strength or purity; second, if any inferior or cheaper substance or substances have been substituted wholly or in part for it; third, if any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it; fourth, if it is in imitation of, or is sold under the name of another article; * * * sixth, if it is colored, coated, polished or powdered whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is; seventh, if it contains any added substance or ingredient which is poisonous or injurious to health." Compiled Laws, Sec. 5012.

We are agreed with the circuit judge that in referring to articles of

food and to protect the users thereof the legislature must have had in view some standard, and as lemon essence or lemon extract had therefore acquired a well-defined meaning we incline to the view that it is proper to resort to the pharmacopoeia formula for the purpose of determining what lemon extract consists of. Does it follow from this that the legislature intended to prohibit improvement in the manufacture of lemon extract? If a means should be discovered by which a larger percentage of the flavoring quantity of the lemon might be extracted would it be an infraction of this law that the manufacturer should use such larger proportion of the essential ingredient of the lemon extract? We think not. We think it is open to manufacturers to improve a common article of food so long as no infringement of the law or spirit of the act defining what shall be deemed adulteration takes place. According to the proofs offered by the defendant it is very clear in the present case no substance or substances have been mixed with this extract so as to lower or depreciate or injuriously affect its quality, strength or purity.

As to the second condition which amounts to adulteration the case is not so clear. This provides that if any inferior or cheaper substance or substances have been substituted wholly or in part for it, that it shall amount to adulteration. We think, however, this provision should be read in connection with the succeeding one, to wit: "If any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it." So construed the provision prohibiting the substitution of any inferior or cheaper substance, wholly or in part, for it means the substitution for an essential ingredient of such cheaper or inferior substance. Now if it be a fact, as the testimony on the part of the respondent tends to show, that it is a positive advantage to exclude the turpene wholly from the extract and to lessen the quantity of alcohol used, then the essential ingredients of lemon extract have not had substituted for them anything inferior or cheaper. We are aware that this view of the law may make it more difficult to establish the individual case, but as the statute is a penal statute it should receive a strict construction.

It follows from the views above expressed that the instruction of the learned circuit judge was erroneous inasmuch as the jury were told in effect that if any ingredient of lemon essence as defined by the pharmacopoeia was wanting in this extract sold by the respondent that there should be a conviction. We think the instruction should have been that if the lemon extract sold by respondent contained all the ingredients and in quantities such as prescribed by the pharmacopoeia which are adapted to use as food, and that nothing was eliminated except such ingredients as could be dispensed with without injury to the product as a food product there was no violation of the statute.

The only other provision of the statute involved is the sixth, which in effect prohibits coloring the article produced whereby damage or inferiority is concealed. The instruction upon this branch of the law was also erroneous if we are correct in our view of the main question. The elimination of non-essential ingredients from the extract certainly does not show damage or inferiority, and as the conceded facts are

that the coloring matter employed was not injurious to health in any way this provision has no application.

The other questions discussed do not require special mention. It may be noted in passing that the circuit judge in referring to the testimony of expert witnesses spoke of it as boughten testimony. We think this expression was unfortunate. While it is proper for the jury to take into account the fact that expert witnesses are employed at an extra compensation paid them, the implication that the extra compensation necessarily amounts to a purchase of their testimony is hardly warranted; while the jury may consider this fact as bearing on their credibility, it is not proper that the court should intimate an opinion of that character.

The judgment should be reversed, and a new trial ordered.

The other justices concurred.

BENNETT v. CARR.

(Opinion filed July 14, 1903.)

Pure Food Law, Act 22, P. A. 1901, Construed—Sale of Yellow Oleomargarine.

Act No. 22 of the Public Acts of 1901 prohibiting the sale of oleomargarine except where it is "free from coloration or ingredient that causes it to look like butter," does not prohibit the sale of oleomargarine whose color is natural, genuine, and not an imitation, and the ingredients themselves naturally produce the color.

The term "ingredient," used in Act 22, Public Acts of 1901, does not refer to the ingredients essential to produce the article as defined by the legislature, but to an ingredient used to produce color.

Certiorari to the Circuit Court for Muskegon county, Fred J. Russell, judge to review an order denying the petition of John R. Bennett for mandamus to compel John M. Carr to issue a warrant. Order affirmed.

Charles A. Blair, Attorney General, and Cross, Lovelace and Ross, for relator and appellant.

Smith, Nims, Hoyt and Erwin for defendant and appellee.

Grant, J.: Relator is the inspector of the State Food and Dairy Department. On the 24th day of February, 1903, he made complaint before the defendant, a justice of the peace of the county of Muskegon, charging one Martin Aamondt with having sold one pound of oleomargarine contrary to Act No. 22 of the Public Acts of 1901. The respondent refused to entertain the complaint and issue warrant, on the ground that the complaint stated no offense under the provisions of said act, and that said act is unconstitutional and void. Relator thereupon applied to the circuit court for the county of Muskegon for the writ of mandamus to compel the respondent to issue said warrant, and proceed

with the examination. The circuit court sustained the action of the respondent, and the case is now before us for review upon certiorari.

The statute in question reads as follows:

"Section 1. No person, by himself or his agents, or servants, shall render or manufacture, sell, offer for sale, expose for sale, or have in his possession with intent to sell, any article, product or compound made wholly or in part out of any fat, oil, or oleaginous substance or compound thereof, not produced from unadulterated milk or cream from the same, which shall be in imitation of yellow butter produced from pure unadulterated milk or cream of the same: Provided, That nothing in this act shall be construed to prohibit the manufacture or sale of oleomargarine in a separate and distinct form, and in such manner as will advise the consumer of its real character, free from coloration or ingredient that causes it to look like butter." The complaint charges Mr. Aamondt with unlawfully selling one pound of oleomargarine "made wholly or in part of fat, oil, or oleaginous substance or compound thereof, as follows, to wit:

Water	11.75 per cent
Butter fat	1.34 per cent
Beef fat, lard and cottonseed oil.....	79.24 per cent
Salt and other mineral matter	4.54 per cent
Curd	3.13 per cent

Said article, product or compound not being then and there butter produced from unadulterated milk or cream from the same, and being then and there in imitation of yellow butter produced from unadulterated milk or cream from the same, and not being then and there oleomargarine in a separate and distinct form and in such manner as would advise the consumer of its real character, free from coloration or ingredient that would cause it to look like butter, but that the said oleomargarine was then and there of a yellow color in imitation of butter, said color not being then and there produced by the addition of any artificial coloring matter, but said color being produced solely by the said ingredients therein contained, the said ingredients hereinbefore set forth, having been selected and used in the manufacture of said oleomargarine in such manner and in such quantities and proportion as to produce the oleomargarine that was then and there in imitation of yellow butter produced from unadulterated milk or cream from the same, contrary to the form of the statute," etc.

The oleomargarine so purchased was manufactured in the city of Chicago, State of Illinois, by one Moxley, a resident of said city, and was sold by said Moxley to said Aamondt in the usual course of trade, and by said Aamondt was sold in the usual course of retail trade, in the same form and condition and in the original package, in which it was received by Aamondt from Moxley.

It is conceded that this oleomargarine has a yellow color similar to butter, but the color is not produced by any artificial coloring substance or ingredient used for the purpose of coloration, but is produced solely by the selection and use, in proper proportions, of the substantial, recognized, legal and necessary ingredients of commercial oleomargarine.

Does the complaint state an offense covered by the statute? The answer depends upon the construction to be given to the statute. The relator contends that the statute covers all products which look like yel-

low butter, and that it is immaterial whether such color is produced by some ingredient introduced for the purpose of causing the product to look like butter, or whether such color is produced by authorized and legal constituent food ingredients.' The respondent contends that the statute is aimed only at the use of ingredients used solely for the purpose of producing the yellow color, and does not prevent the manufacture of an article whose color is natural, genuine and not an imitation. Penal statutes must be construed strictly and cannot be extended by construction beyond the intent of the act as expressed on its face. The conditions existing at the time the statute was enacted, and the mischief to be remedied, are important factors in construing penal statutes. Two acts covering the same subject must be construed as in *pari materia*, and, if possible, effect given to both. These are elementary rules of construction. At the time the statute in question was enacted the only method in use in causing oleomargarine to look like yellow butter was the introduction of some extraneous coloring matter. This was the mischief to be remedied. We clearly so understood in *People v. Rotter*, 9 D. L. N. 284; 91 N. W. Rep. 167, where, speaking through Chief Justice Hooker, we said of this statute: "The statute under consideration * * * does not prohibit sales of oleomargarine which is not tainted with the prohibited ingredient." See also *People v. Phillips*, 9 Id. 393; 91 N. W. Rep. 616.

The legislature has defined oleomargarine which may be manufactured and sold in this State. Sec. 6, Act No. 147, Public Acts of 1899. It is conceded that the respondent has complied with this act. If we give the enlarged construction to the statute now in question, as urged by the relator, it follows that the legislature has prohibited the manufacture and sale of a valuable article of food, the natural color of which resembles yellow butter (itself almost universally colored by extraneous matter). The manufacturer of such a product, if he sold it at all, would be compelled to introduce some coloring matter so as to make it look unlike the yellow butter of commerce. These two statutes must be construed together. The article sold by the respondent is clearly authorized by the first act. The latter act does not in terms prohibit its sale and manufacture. It does prohibit the use of any substance for the sole purpose of producing yellow color. The use of such coloring matter was the sole mischief then known to exist, and the only danger to be apprehended and guarded against.

A similar statute was passed in New Jersey, and the like contention was made to support a conviction, and the court said: "To construe the statute so broadly would render it practically prohibitive of the sale of all oleomargarine; for, of course, the compound must derive color from its ingredients, and such a prohibition has manifestly not been declared."

Ammon v. Newton, 14 At. Rep. 610; 50 N. J. 548.

McCann v. Commonwealth, 48 At. Rep. 470; 198 P. A. St. 509.

Our statute is copied verbatim from that of Massachusetts. The Supreme Court of that State, in a case just decided, has held that the statute applies only to extraneous substances or ingredients which cause

the product to look like butter, and not to cases where the ingredients themselves naturally produce the color.

Commonwealth v. Himberg, ————.

The Supreme Court of the United States so held in regard to the same statute.

Plumley v. Commonwealth, 155 U. S. 461.

The term "ingredient," used in the statute, does not refer to the ingredients essential to produce the article as defined by the legislature, but to an ingredient used to produce color. The maxim *noscitur a sociis* applies.

Under this disposition of the case it becomes unnecessary to discuss any constitutional question.

The order is affirmed.

The other justices concurred.

PEOPLE v. HARRIS.

(Opinion filed December 1, 1903.)

Food—Corn Syrups—Glucose.

1. Public Acts 1903, No. 123 forbids the sale of cane syrup or beet syrup mixed with glucose, unless the package containing the same be distinctly branded "Glucose Mixture" or "Corn Syrup," with the name and percentage of each ingredient contained therein plainly stamped thereon. Held, That a sale of syrup made of 90 per cent pure corn syrup and 10 per cent cane syrup, labeled "Victor Corn Syrup," and truthfully stating the ingredients composing it, is not in violation of the statute, in that it is not branded "Glucose, 90 per cent, and cane syrup 10 per cent."

Exceptions from circuit court, Kent county; Willis B. Perkins, judge. Benjamin S. Harris was convicted of violating the "Act in relation to the sale of corn syrup" and brings exceptions. Reversed.

Respondent was prosecuted and convicted for a violation of Act No. 123 of the Public Acts of 1903, entitled "An act in relation to the sale of corn syrup," and reading as follows:

"Sec. 1. No person shall offer or expose for sale, have in his possession with intent to sell, any cane syrup, beet syrup, or glucose, unless the barrel, cask, keg, can, pail or package containing the same be distinctly branded or labeled with the true and appropriate name; nor shall any person offer or expose for sale, have in his possession with intent to sell, or sell any cane syrup or beet syrup mixed with glucose unless the barrel, cask, keg, can, pail or package containing the same be distinctly branded or labeled 'Glucose Mixture' or 'Corn Syrup' in plain Gothic type not less than three-eighths of an inch square, with the name and percentage by weight of each ingredient contained therein plainly stamped, branded or stenciled on each package in plain Gothic letters not less than one-quarter of an inch square. Each and every package of syrup either

simple or mixed shall bear the name and address of the manufacturer. Such mixture or syrups shall have no other designation or brand than herein required that represents or is the name of any article which contains a saccharine substance; and all brands or labels required shall be an inseparable part of the general or distinguishing label, and that the general or distinguishing label shall be that principal and conspicuous sign under which it is sold.

"Sec. 2. Whoever shall do any of the acts or things prohibited, or neglect or refuse to do any of the acts or things required by this act or in any way violate any of the provisions, shall be deemed guilty of a misdemeanor, and shall be punished by a fine not less than twenty-five dollars nor more than one hundred dollars, or by imprisonment in the county jail for a period of not less than thirty days nor more than ninety days, or by both such fine and imprisonment in the discretion of the court."

The complaint charges him with the unlawful sale of "a two-pound can, two pounds, of a certain article, product and compound, to-wit: corn syrup, so-called, made wholly or in part of cane syrup and glucose as follows, to-wit: Cane syrup ten per cent, and glucose ninety per cent, said can containing said article, product and compound sold as aforesaid not being then and there stamped, branded or stenciled with the name and percentage by weight of each ingredient contained therein, to-wit: Cane syrup ten per cent, glucose ninety per cent; but said article, product and compound sold as aforesaid was then and there stamped and branded as follows, to-wit: 'Cane syrup ten per cent, corn syrup ninety per cent,' against the form of the statute in such case made and provided, and against the peace and dignity of the people of the State of Michigan."

Respondent moved to quash the complaint and warrant for two reasons: (1) they charged no offense; (2) the act authorizes the use of the words "Corn Syrup," instead of Glucose in the statement of the ingredients placed upon the can. The motion was overruled and the case proceeded to trial upon the following agreed facts:

1. The respondent sold on October 12, 1903, at the city of Grand Rapids, Michigan, the can of Victor Corn Syrup in question.

2. The label on said can of syrup sold, as stated in the complaint, contains the formula of contents of said can as follows: "Corn syrup, ninety per cent; cane syrup, ten per cent;" and is not branded or labeled as the people claim it should be, "Glucose, ninety per cent; Cane Syrup, ten per cent."

3. The Victor Corn Syrup in question is in fact composed of ninety per cent syrup made from corn, commercially called Glucose or Corn Syrup, and ten per cent of cane syrup.

4. Glucose contained in the Victor Corn Syrup in question is in fact a pure syrup made entirely from corn.

5. Grape Sugar, commercially known as Glucose, either solid or liquid, is a generic name for starch sugar as distinguished from the cane sugar.

6. A simple beet syrup is evidently the same as the simple cane syrup.

7. Originally, Glucose, which was first made from grapes, was, for the reason that starch sugars are identical with the sweet principle of grapes, termed, for a great many years, and until lately was known chemically and commercially as Grape Sugar.

8. Commercially, Glucose is now made in this country entirely from corn, although abroad it is still made from potatoes.

9. The consuming public does not understand that Glucose is a syrup made entirely from corn. On the contrary, it is claimed by the respondent that the public generally supposes Glucose to be an inferior product made from animal fat, or a product of the glue factory, while they do recognize corn syrup as being made from corn.

10. Glucose as made from corn and contained in Victor Corn Syrup in question, is entirely harmless and recognized generally by highest authorities as a valuable food product.

11. Glucose made from corn, in fact, costs at the present time, owing partially to cost of raw material, more to produce, and sells for more in the markets, than manufactured cane syrup.

The court directed a verdict of guilty.

Grant, J.

Does the statute require respondent or manufacturers to state upon their labels that corn syrup consists of ninety per cent glucose? No such statute has come under the decision of other courts. It is a new question, and must be determined upon general principles of construction.

It is conceded that the label states the exact facts; that the article is made of ninety per cent pure corn syrup and ten per cent cane syrup; that it deceives no one; that Victor Corn Syrup is a valuable and pure article of food, and that the ingredient ninety per cent corn syrup "is entirely harmless, and recognized generally by the highest authority as a valuable food product," whether it be called glucose or corn syrup. The term "Glucose" is obnoxious to many, if not a majority, of the public and is misunderstood by them. They do not know that in this country glucose is now made entirely from corn, and that the terms glucose and corn syrup are commercially synonymous. This fact is known to the manufacturers and perhaps the dealers. A prejudice exists against the term "glucose" because that material can be manufactured from many substances, including sawdust. In Europe it is made mainly of potatoes. By many it is associated with a glue factory. In this country corn syrup and glucose are not only commercially synonymous terms, but it is stated by counsel for respondent that they are permitted to be so used in all the other states. We have not verified this statement, but as it is not challenged we assume it to be correct.

We have, therefore, a valuable and healthful product, made from two pure, valuable and healthful ingredients, advertised and placed upon the markets for what it really is, without any deception, fraud or chance to injure the public in any way. Yet the contention on behalf of the people is that the legislature has enacted that in putting this product upon the market its manufacturers and sellers must attach to it a name obnoxious to the public, and, in fact, calculated to deceive them. When it is claimed that such innocent acts are made *malum prohibitum*, there must be either an express provision of the statute so declaring, or the language of the statute must leave no other conclusion reasonable. This statute does not expressly require it.

The argument on behalf of the people in "that glucose made from corn

is glucose, the simple syrup mentioned in and intended to be mentioned in said act." The further claim is "that had there been any intention on the part of the legislature to use the terms 'glucose' and 'corn syrup' interchangeably and as synonymous then the term 'corn syrup' would have been enumerated as one of the simple syrups." We do not think this reasoning at all conclusive. Prior to the enactment of this statute the law prohibited the sale of molasses, syrup or glucose unless distinctly branded or labeled with its true and appropriate name,—or any mixture thereof, unless it was branded or labeled "glucose mixture," and the per cent in which glucose entered into its composition. C. L., Sec. 5024. The present act which repeals the provisions of the former act expressly permits the mixture to be labeled "glucose mixture," or "corn syrup," and forbids mixtures or syrups to have any other designation than required in the act so far as such designation "represents or is the name of any article which contains saccharine substance." It is a fair presumption that the legislature, in enacting this law, recognized the obnoxious character of the term "glucose" among the people, and permitted, and intended to permit, a mixture of corn syrup and cane syrup to be sold under the name of Corn Syrup. The title to the act provides for the sale of corn syrup, and in its body provides that when cane syrup is mixed with it, the manufacturers and dealers shall state the proportionate ingredients. The smaller amount of cane syrup used does not change the character of the general product, any more than salt changes the character of bread, or, sugar that of cake, and the act permits the sale of the mixture as corn syrup. Syrup, as defined by the United States Department of Agriculture, "is the product obtained by purifying and evaporating the juice of a sugar producing plant without removing any of the sugar." Syrup thus obtained from cane is cane syrup; syrup so obtained from sorghum is sorghum syrup, and syrup so obtained from corn is corn syrup. There is no reason why corn syrup should be labeled glucose, and until the legislature have so ordered in language susceptible of no other construction, the law must be held not to bear that construction.

Conviction reversed, and respondent discharged.

Hooker, C. J., took no part in the decision. The other justices concurred.

PEOPLE v. HINSHAW.

(Opinion filed January 5, 1904.)

Pure Food Law—Adulterated with Harmless Ingredients—Act 193, P. A. 1895, construed.

The coloration of "Extract of Vanilla" with any substance to give it the appearance of greater strength is a violation of the pure food law, even though such coloring matter is harmless.

Act 193, P. A. 1895, as amended by Act 118, P. A. 1897, held constitutional.

Error to the circuit court for Saginaw county; B. A. Snow, judge.

Appeal of Emory H. Hinshaw from a conviction under the pure food law. Affirmed.

Charles A. Blair, Attorney General, and Frank A. Rockwith, Jr. and C. M. Browne, for the people.

Eugene Wilber for respondent and appellant.

Respondent was prosecuted and convicted of the unlawful sale of "Extract of Vanilla, which was then and there adulterated within the meaning of act number 193 of the Public Acts of the State of Michigan of the year 1895, as amended by act number 118 of the Public Acts of 1897, in this, to-wit: That said extract of Vanilla was colored by the addition of a foreign coloring matter, to-wit: coal tar dye, whereby its inferiority was concealed, and whereby said Extract of Vanilla was made to appear better and of greater value than it really was."

Two errors are assigned.—(1) that the court erred in instructing the jury; (2) that the act is unconstitutional as repugnant to the Fourteenth Amendment of the Constitution of the United States.

Grant, J.: I. The instruction complained of is as follows:

"Now before the inferiority of an article can be concealed it must be necessarily first ascertained as to whether or not there is an inferiority in the article. If it is an inferior article and that inferiority is concealed by reason of the addition of foreign substance in this vanilla, and you are satisfied from the proof beyond a reasonable doubt of the fact, then he would be guilty, although he had no knowledge as to the foreign substance being in the bottle."

It appears that no such claim was made on behalf of respondent upon the trial; no request was asked covering the points now raised. The only objections shown by the record to have been made are.—first, that the title is not broad enough to cover the provisions in the amendment of 1897; second, that the legislature has no power to prohibit and punish acts in themselves harmless; third, that the act is unconstitutional.

Even in criminal cases it is the duty of counsel to call the attention of the court to the points on which an instruction is desired. *People v. Ezzo*, 104 Mich. 311.

We, however, are of the opinion that the information charges the coloration to make an inferior article appear better and more valuable than it really was, and is sufficient; and also that there was evidence to sustain the allegation. The State Chemist testified that the effect of the coal tar dye was to make the article appear of greater value than it really is, and that the people would think it stronger than it really was. It is true, his testimony was weakened by cross-examination, but not sufficient to take the question from the jury,—especially in view of the fact that no other purpose than to make the article appear better, is shown.

II. The use of coal tar dye being harmless, counsel for respondent insists that the case comes within the rule of the recent case of *People*

v. Jennings, 94 N. W. R. 216; 10 D. L. N. 39. That case had not been decided when this case was tried. No such theory was advanced upon the trial. Even if it were, we, however, think the case is clearly distinguishable from *People v. Jennings*. The color given to lemon extract, which of itself is almost colorless, is no indication whatever of the strength of the extract or its value. Its color is a mere whim or caprice of the trade, and no more indicates the character and value of the extract than does the coloring matter, used to color butter, indicate its character and value. In this case Vanilla resembles the color of the bean from which it is produced. Its strength and value are judged to some extent at least, under the evidence in this case, from its color. No other object is apparent from the use of the coloring than to make it appear of a quality better than it really is.

III. It is urged that the act is unconstitutional on account of the proviso "that nothing in this act shall prevent the coloring of pure butter." This act is similar in its provisions to that involved in *People v. Rotter*, 91 N. W. R. 167; and *People v. Phillips*, Id. 616. The constitutionality of such acts was there sustained, and a discussion is unnecessary. *Capital City Dairy Co. v. Ohio*, 183, U. S. 238, 246, is decisive of the question.

The conviction is affirmed.

The other justices concurred.

The Pratt Food Company,

v.

Arthur C. Bird, Dairy and Food

Commissioner of the State of Michigan.

Montgomery, J.: The bill in this case is filed to restrain the defendant, his clerks and employes, from writing, printing, issuing, publishing or sending out any bulletin, writing, publication or notice, to the effect that complainant's preparations sold as Pratt's Food for Horses and Cattle, Pratt's Poultry Food, and Pratt's Animal Regulator, or either of them, are not licensed under Act No. 12 of the Laws of 1905, and warning the public against buying or selling these preparations.

The bill sets out that the defendant asserts and claims that these preparations come within the terms of the act, and that unless restrained by injunction he will so assert by bulletins issued to the trade, and by this method intimidate dealers and prevent their purchasing complainant's products. (We are stating simply the substance of the averments in brief.) It is also asserted that the effect of such bulletins will be to destroy and ruin the complainant's trade and work irreparable injury.

Upon the hearing below the bill was dismissed, and the complainant appeals. Three questions are presented upon the record, first, whether in view of the case complainant is entitled to the remedy here invoked;

second, whether Act No. 12 of the Public Acts of 1905 is constitutional; third, whether if it be constitutional the complainant's products come within the terms of the statute.

1. The statute in question is an amendment of Act No. 211 of the Public Acts of 1893, entitled "An act to provide for the appointment of a Dairy and Food Commissioner, and to define his powers and duties and fix his compensation," and by section 18 of the act it is provided that "Any manufacturer, company, person or persons who shall sell, offer or expose for sale or for distribution, in this State, any concentrated commercial feeding stuff used for feeding live stock, shall furnish with each car, or other amounts shipped in bulk, and shall affix to every package of such feeding stuff, in a conspicuous place, on the outside thereof, a plainly printed statement, clearly and truly certifying the number of net pounds in the car or package sold or offered for sale, the name or trademark under which the article is sold, the name of the manufacturer or shipper, the place of manufacture, the place of business, and a chemical analysis, stating the percentages it contains of crude protein, crude fibre, nitrogen—free extract and ether extract, all constituents to be determined by the methods adopted by the association of official agricultural chemists. Whenever any feeding stuff is sold at retail in bulk or in packages belonging to the purchaser, the agent or dealer shall furnish to him a certified copy of the chemical analysis named in this section. The term concentrated commercial feeding stuffs as used in this act shall include linseed meal, cotton seed meal, pea meals, cocoanut meals, gluten meals, oil meals, of all kinds, gluten feeds, maize feeds, starch feeds, mixed sugar feeds, hominy feeds, rice meals, oat feeds, corn and oat feeds, meat meals, dried blood, clover meals, mixed feeds of all kinds, slaughter house waste products; also all condimental stock foods, patented and proprietary stock foods, claimed to possess nutritive properties and all other materials intended for feeding to domestic animals. * * *" A penalty is provided for the violation of this provision.

It is strenuously insisted by the Attorney General that if it be conceded that the complainant's products do not come within the inhibition of this statute, yet no remedy by injunction exists, for the reason that the effect of issuing an injunction is to restrain the prosecution of a criminal proceeding. Numerous cases are cited, among them *Arbuckle v. Blackburn*, 113 Fed. Rep. 625; *State v. Wood*, 155 Mo. 425, and *Pre-digested Food Co. v. McNeal*, 1 Oh. N. P. 266.

In so far as these cases lay down the rule that a court of equity will not interfere to restrain a public officer from invoking the criminal law and instituting a prosecution for a violation of a statute they have our full approval. A court of equity will not transfer to its own jurisdiction the trial of a criminal case, and this though the prosecution may fall with some hardship upon the accused party. Nor, as a general proposition, will a court interfere to restrain the publication of a libel.

But we hold in *Beck v. Railway Teamsters' Protective Union*, 118 Mich. 497, that injunction will lie to restrain a combination of, persons from acts which tend to ruin complainant's business by bringing to bear upon his customers intimidating and coercive means. The principle

which should rule the present case is identical. If the acts which are threatened are unlawful it cannot be doubted that placing in the hands of every dealer in the State a bulletin which in effect threatens them with prosecution in case they make use of these products in the form in which they are lawfully sold to them would be to absolutely exclude complainant's business from the State. The case presented is very similar in this aspect to that of *American School of Magnetic Healing v. McAnnulty*, 187, U. S. 94, which case involved the right of the Postmaster General to exclude the complainants from the use of the United States mails. An order had been made excluding complainants from the use of the mails. The court interfered and held that such order was a violation of the property rights of the persons affected and granted relief.

2. Is the law constitutional?

It is claimed that the law is unconstitutional in that it violates Section 20 of Article IV of the constitution, which provides that no law shall embrace more than one object, which shall be expressed in its title.

It is established by our decisions that if what is introduced by way of an amendment to an act might have been incorporated in the act under the original title there is no violation of this section. *People v. Gadway*, 61 Mich. 285; *Attorney General v. Bolger*, 128 Mich. 355.

The question is therefore whether under the original title a provision fixing a standard of pure food and providing means to prevent deception in the sale of such food is within the title of an act to provide for the appointment of a Dairy and Food Commissioner and to define his powers and duties and fix his compensation. We think the title is within our previous decisions sufficient. It is obvious to one reading this title that there must have been imposed upon the commissioner certain powers and duties to make his Department of any value to the State, and furthermore that these powers and duties must have relation to something. It is equally obvious that the relation of these powers and duties must be to the subject which is brought within the Department that is created, viz., the Dairy and Food Department.

The title is very similar to that which established the Insurance Bureau. In *Connecticut Mutual Life Ins. Co. v. State Treasurer*, 31 Mich. 6, it was held that a title which read "An act to establish an Insurance Bureau" was sufficiently broad to cover any pertinent regulations respecting the bureau's course of action towards those engaged in insurance, and any appropriate provisions for prescribing the duty due from the insurance companies to the State in the matter of taxation, without violating the constitutional provisions.

3. The question of more difficulty is the question of fact as to whether the preparations of complainant are concentrated commercial feeding stuffs as defined by the act cited above.

It is true the testimony shows that upon each of the labels which accompanied Pratt's Food for Horses and Cattle was the statement: "Pratt's Food is a regulator, to be used according to directions, and is not sold as a feeding stuff, nor is it to be fed in place of grain or any other feed." But in addition to claiming medicinal properties for the food it was also stated how it should be used to fatten and improve

stock. It was stated that "It fattens both cattle and hogs quickly, makes them grow larger and healthier and make their meat tender, more juicy and better eating." It also stated that for horses it "produces bone, muscle and better staying powers; improves the wind."

When this statute was enacted commercial feeding stuffs were on the market and this fact must have been known to the Legislature.

In employing the broad language "All condimental stock foods, patented and proprietary stock foods, claimed to possess nutritive properties and all other materials intended to cover all preparations for which the claim of nutritive qualities was made." Complainant's preparations come within this language.

Similar representations were made in the labels of other preparations.

We are of the opinion that the Circuit Judge was right in holding that all these preparations were within the statute.

The decree is affirmed with costs.

Pierre Viaus Maple Company, Complainant, v. Arthur C. Bird, Dairy and Food Commissioner, and Joseph Schnitzer, Inspector of the Dairy and Food Department, Defendants. Before Grant, C. J., Blair, Montgomery, Ostrander and Hooker, JJ.

Complainant is the manufacturer of a brand of syrup known as the "Pierre Viaus Pure Canadian Maple Syrup and Cane Syrup." The trademark being the letters P. V. The bill alleges that the Canadian Pure Maple Syrup exceeds the amount of Cane Syrup. It sets forth efforts made with the Pure Food Commission to agree upon a label which shall comply with the law, the failure of these negotiations, the representations made to the trade by the defendants that the sale of this syrup is illegal, and the injurious effect upon the complainant's business, and prays that the defendants be restrained from in any manner interfering with its business. To this bill of complaint the defendants demurred upon the ground that the syrups mentioned in said bill of complaint are not labeled as required by the laws of this State. The demurrer was overruled and the defendants have appealed.

Grant, C. J.

It is urged by the Attorney General that the sale of this mixture is in violation of section 5007 of the Compiled Laws, reading as follows:

"That it shall be unlawful for any person, dealer, firm, manufacturer or corporation to manufacture and sell, or offer for sale, any maple sugar, maple molasses or maple syrup that is in anywise adulterated with common sugar, beet sugar, glucose or any other foreign substance without distinctly marking, stamping or labeling the articles or the package containing the same with the true and appropriate name of

such article and the percentage in which common sugar, beet sugar, glucose or any other foreign substance enters into the composition of the same."

It is urged by the complainant that the case falls within Act 193, Public Acts of 1895, known as the Pure Food Law, and entitled "An act to prohibit and prevent adulteration, fraud and deception in the manufacture and sale of articles of food and drink."

Sec. 1 (C. L. 5010) of the act prohibits the sale or having in possession with intent to sell any article of food which is adulterated within the meaning of the act.

Sec. 2 (C. L. 5011) defines the term "food" to include all articles used for food or drink.

Sec. 3 (C. L. 5012) states what articles shall be deemed to be adulterated. The section closes with the following proviso:

"Provided further, That the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles or ingredients of articles of food, if each and every package sold or offered for sale bear the name and address of the manufacturer and be distinctly labeled under its own distinctive name, and in a manner so as to plainly and correctly show that it is a mixture or compound, and is not in violation with definitions fourth and seventh of this section."

The court held that this syrup came within the Pure Food Law (Act 193), and not under the act prohibiting the adulteration of maple sugar, etc., and that it came within the proviso above quoted.

We think the court was in error. The act in regard to the manufacture and sale of maple sugar is complete in itself, and covers the entire subject. It was intended to prohibit the manufacture and sale of maple sugar under any name without labeling the product with the true and appropriate name, stating thereon the percentage of any other ingredient used in its manufacture. The title of the act is "An act to prohibit the adulteration of maple sugar, maple molasses and maple syrup." The word "adulteration" in this statute means the mixture of any foreign substance, wholesome or unwholesome, with maple sugar. The evident purpose of the statute is to compel all persons manufacturing or selling maple sugar to inform the public not only of what the product is composed, but the proportions of each article used in the manufacture.

Decree reversed, and bill dismissed with costs of both courts.

Armour & Co., Complainants,

v.

Arthur C. Bird, State Dairy and Food Commissioner,
et al., Defendants.

Before: Blair, C. J., Grant, Montgomery, Ostrander, Hooker, J.J.:
Complainant is a corporation organized under the laws of the State

of New Jersey, with headquarters in Chicago, Illinois. It is and has been for many years, engaged in the manufacture and sale of fresh and cured meats and sausage and other meat products. Its sale of these products, including sausage, extended over the entire State of Michigan.

In the year of 1906, the defendant, the Dairy and Food Commissioner, caused chemical examination to be made of the various brands of sausage sold within the State, including that of the complainant, and found that many of them contained cereals and a percentage of water greater than that found in meat alone. On January 16, 1907, he issued the following circular:

"Gentlemen:—A growing tendency on the part of manufacturers of sausage, bolognas and similar meat products, to use various preparations and substances foreign to the legitimate ingredients necessary to the manufacture of these articles of food, the said preparations being commonly known and designated as fillers, binder, etc., has prompted this Department to make a thorough investigation into such sausages. This has been done for the purpose of ascertaining the true reasons for the widespread practice of using the preparations mentioned.

The results obtained from the investigation as carried on in the Department laboratory lead to but one conclusion, viz., that the addition of so-called binders and fillers to meat products is primarily for the purpose of substituting in part an inferior or cheaper substance for legitimate ingredient, thereby lessening the cost of manufacture.

The first and second subdivisions of section 5012 of the Compiled Laws provide that an article shall be deemed to be adulterated within the meaning of the act,—first, if any substance or substances have been mixed with it so as to lower or depreciate or injuriously affect its quality, strength or purity; second, if any inferior or cheaper substance or substances have been substituted wholly or in part for it. Basing its ruling on the subdivisions of section 5012 above cited, this Department holds that the addition of the so-called binders and fillers mentioned to meat products is contrary to law. From and after this day, manufacturers and dealers will be held to a strict account for each and every violation. Provided, however, that dealers within the State are given until January 25, 1907, to dispose of stocks on hand.

"Yours very truly,

"A. C. BIRD,

"State Dairy and Food Commissioner."

This circular was sent to all the meat dealers of the State, and a copy sent to the complainant at Chicago. Those employed under the direction of the defendant Food Commissioner also verbally informed the retail dealers of the State that they would be prosecuted if they did not comply with the above order. The trade of the complainant in Michigan was very large, and the effect of this circular, and the threats of prosecution verbally made, naturally tended to decrease very largely the complainant's sales in this State, and to cause it considerable loss. Therefore, on November 18, 1907, complainant filed its bill of complaint in this cause, setting forth the above circular and threats on the part of the defendants, the injury to its business, that defendants were acting

illegally in their conduct, and praying that they be restrained from "declaring in any manner, orally or in writing, to the customers and patrons of your orator, or to the people of the State of Michigan, that the sausages and other meat products of your orator containing cereal, manufactured and sold, and offered for sale in the State of Michigan, are sold and offered for sale in violation of any statute of the State of Michigan." The bill alleges that the sausage manufactured and sold by the complainant bear labels showing their respective ingredients, in accordance with the standard fixed by the laws of the United States and the regulations of the Department of Agriculture thereunder, a sample of said labels being set forth in the bill and reading as follows:

ARMOUR'S "DEVONSHIRE" Farm Style SAUSAGE MEAT. Made from the Meat of Hams and Selected Young Pork. Prepared with choicest spices and cereals. Armour & Company.

U. S. Inspected and passed under the Act of Congress of June 30, 1906. Establishment 2 A.

An answer was duly filed denying that the sausage manufactured and sold by the complainant in this State containing cereals and water is a wholesome product, or that it is manufactured in accordance with the Act of Congress of June 30, 1906, and the regulations of the United States Department of Agriculture; or that it is a compound or mixture within the meaning of the proviso of Sec. 3, Act 193, Pub. Acts of 1895, as amended. The answer admits that the sausage of the complainant is shipped into this State in packages, or boxes, labeled with the trade name of the sausage, and the words "with cereal," but alleges that the consumer, or purchaser of the retail dealer, is in no way advised, when he purchases, that the sausage contains cereal, or cereal and added water, unless such purchaser purchased the entire package shipped to the dealer, and that even then he was not informed that the product contains added water.

Both the bill and answer contain other allegations which we deem it unnecessary to state. Issue was joined, proofs taken in open court and by deposition, and after a full hearing decree was entered dismissing the bill. The statute, C. L. Sec. 5012, under which defendants claim to justify their action, is as follows:

"An article shall be deemed to be adulterated within the meaning of this act: First, if any substance or substances have been mixed with it, so as to lower or depreciate or unjustly affect its quality, strength or purity; second, if any inferior or cheaper substance or substances have been substituted wholly or in part for it; third, if any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it; fourth, if it is an imitation of, or is sold under the name of another article; fifth, if it consists wholly or in part of a diseased, decomposed, putrid, infected, tainted or rotten animal or vegetable substance or article, whether manufactured or not, or in the case of milk, if it is the product of a diseased animal; sixth, if it is colored, coated, polished, or powdered whereby damage or inferiority is concealed or if by any means it is made to appear better or of greater

value than it really is; seventh, if it contains any added substance or ingredient which is poisonous or injurious to the health: Provided, That nothing in this act shall prevent the coloring of pure butter: And provided further, That the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles or ingredients of articles of food, if each and every package sold or offered for sale bear the name and address of the manufacturer and be distinctly labeled under its own distinctive name, and in a manner so as to plainly and correctly show that it is a mixture or compound, and is not in violation with definitions fourth and seventh of this section."

Grant, J.: The following facts are admitted or established beyond controversy:

(a) The sausage manufactured by the complainant is a wholesome article of food. It contains nothing deleterious to health.

(b) It is a mixture or compound within the meaning of the proviso in the statute above quoted, being composed of meat, cereal, salt and spices.

(c) It is made in accordance with the Act of Congress and directions prescribed thereunder by the Commissioner of Agriculture, and under the inspection of the United States inspectors.

(d) Sausage is made of different kinds of meat, viz., pork, beef and veal. Whether manufactured for interstate commerce or domestic use within the State, it is sometimes made with cereal, and sometimes without it. Cereal is not a necessary ingredient to its manufacture, although it has been used by most manufacturers for many years.

(e) Water is an essential ingredient in the manufacture of sausage, whether made with or without cereal. This is shown by the evidence of the defendants. One of their witnesses, with an experience of thirty-five years, testified:

"In the manufacture of pork sausage we use pork, and if the pork is a little too fat we put in some veal or beef. It is necessary to have a little water added, a quart and a half to 100 pounds. It is pretty hard to make them without. We use a little more water than would be found in the meat when freshly killed."

Another, who had been engaged in the manufacture of sausage since 1864, testified:

"I put a little water in pork sausage. I use from five to ten pounds of water to 100 pounds of meat. Enough to make it pliable that is all. I use from eight to ten pounds of water in making beef sausage. I presume you could make sausage without water, but you could not stuff it very well."

Another who learned to make sausage in Germany, testified:

"I have always used water and still use water in the manufacture of sausage. Water is necessary. They use water in making sausage in Germany. So far as I know everyone used it."

The United States regulations require that the water used shall be pure.

(f) It is not in violation of definitions four and seven of the act. It does not violate definition seven because it contains no substance or ingredient poisonous or injurious to health. It does not violate definition

four because meat is the basis and principal ingredient of the article. As manufactured by complainant, it contains from two to ten per cent of cereal. It is and has been, for more than forty years, recognized in the trade as sausage. When sold as sausage with cereal added it deceives no one, is not an imitation and manufacturers are entitled to manufacture and label it as sausage with cereal. It is not contended that manufacturers have not the right to use the name "sausage" when sold with a proper label.

The Federal statute is practically identical with that of Michigan and contains a proviso reading:

"That an article of food which does not contain any added poisonous or deleterious ingredients shall not be deemed to be adulterated or misbranded in the following cases:

First. In the case of mixtures or compounds which may be now or from time to time hereafter known as articles of food under their own distinctive names, and not an imitation of or offered for sale under the distinctive name of another article, if the name be accompanied on the same label or brand with a statement of the place where said article has been manufactured or produced.

Acting under this law, the Department of Agriculture, on September 12, 1906, adopted the following regulation:

"Sausages and Chopped Meats. The word sausage without a prefix indicating the species of animal is considered to be a mixture of minced or chopped meats with or without spices. If any species of animal is indicated as pork sausage, the sausage must be wholly made from the meat of that species. If any flour or other cereal is used the label must so state. If any other meat product is added, the label must so state."

To this regulation the department added "manufacturers are warned that the above rulings do not exempt them from the enforcement of state laws."

The learned circuit judge, in his opinion, found that sausage manufactured as is that of the complainant, "is probably as healthy as pure sausage such as was known to the fathers."

Briefly stated then, the case is this: complainant, a resident of another state, is manufacturing and shipping into this State a wholesome article of interstate commerce in strict accord with the law and regulations of the federal government. State law cannot interfere with this interstate traffic. The law here involved does not attempt to interfere with it, or to deny to the complainant the right to sell and ship its goods to retail dealers in this State. There are, therefore, but two questions material to the determination of this controversy, viz.:

(1) May the state through its legislature enact laws regulating the domestic sales of this product to consumers within the state?

(2) Does the statute above cited include the product made by the complainant?

It is not contended that the state is not clothed with the power to regulate the domestic sale of such products after their shipment into the state. Intoxicating liquor, which is a subject of interstate com-

merce, may be shipped into this State in original packages, but it cannot be sold within the state in violation of the state laws regulating or prohibiting its sale. No contention is made that the state statute in question is not constitutional and reasonable. Pure food laws have been enacted probably in all the states and have been universally held valid when reasonable. The sole question therefore left to determine is whether the statute includes sales to consumers in small quantities taken from the original packages. If the domestic dealer were to sell an original package labeled as above to the consumer, such sale would be valid, because the label complies with the law and notifies the purchaser that the article is not a sausage of meat alone, but a sausage composed of meat and cereal. It is not contended that manufacturers of sausage have not the right to label their product "sausage" with the statement added that it is mixed with other products, specifying them.

If we understand the position of counsel for complainant correctly, it is that in construing this statute courts should be governed, not by the popular and common understanding of the meaning of the word "sausage," but by its trade and commercial meaning; that is, its meaning as understood between the manufacturers and their customers to whom they sell for retail to consumers. They say:

"It is unmistakeable that the legislature understood it was enacting a law with reference to an article of food which was then a subject of trade and commerce among the people. There were at times scores of different kinds of "sausage" upon the market, that is, sausage made in different ways, a difference in the ingredients used in the various kinds, and a variance in the proportions used; and different manufacturers and dealers made and dealt in different kinds, and each knew that all this variety of meat food products were included in the term "sausage," and the legislature is charged with knowledge of that fact, and must be presumed to have used the term "food" accordingly."

In support of this they cite several cases from the federal courts construing the tariff or duty acts, in which it has been held that the laws of Congress imposing duties upon imported goods must be construed with reference to the trade or commercial meaning of the articles mentioned in the law. Among the cases cited are the

Two hundred Chests of Tea, 9 Wheaton 430;
Cadwalader v. Zeh, 151 U. S. 171;
McCoy v. Hedden, 38 Fed. Rep. 89.

In the Two Hundred Chests of Teas it was held that "bohea tea" was used in the duty act in its known commercial sense, viz., "that article which in the known usage of the trade acquired that distinctive appellation."

In Cadwalader v. Zeh, the question was whether, under the duty act, earthenware consisting of small cups, saucers, mugs, etc., having on them pictures of animals and other objects, and letters of the alphabet, should have been assessed as toys with 35 per cent ad valorem, or as china, etc., with 60 per cent ad valorem. The case was held to depend upon the commercial meaning of the word "toys."

In McCoy v. Hedden, the question was whether currycombs were

dutiable under a provision imposing a duty upon combs of all kinds. If they were not known to the trade among merchants as combs they were held not dutiable as such. These and other similar cases arose between the United States and importers of foreign goods, and do not apply to cases arising under the pure food laws of state governments. Courts will take cognizance of the well-known fact that farmers, laboring men and consumers are not generally familiar with the customs of trade and commerce in importing goods, or of understandings of the trade between manufacturers and merchants who buy those products for retail trade. Such construction would emasculate the pure food laws and deprive the people of the protection which the legislature wisely intended to give them.

Sausage is defined by all the lexicographers as an article of food composed of meat, salt and spices. (See Worcester's and Century dictionaries.) The people generally so understand it. The writer of this opinion would be compelled to admit that until very recently he had no knowledge that cereal was used in the manufacture of sausage. It is to manifest for further argument that the legislature in enacting the law was not providing for the regulation of sales between manufacturers and merchants, but between retail dealers and consumers. They enacted the law solely for the protection of consumers, the people who buy and eat the products. The consumer who prefers sausage made of meat alone is entitled to be informed that he is buying such an article. The consumer who prefers sausage mixed with cereal is entitled to know that he is purchasing that article. The contention of the complainant, if sustained, would deprive the consumer of this right which the statute plainly gives him. We cannot follow *State v. Nesland*, 120 N. W. Rep. 107, (Iowa), wherein it is held that sales in small quantities from original packages are not within the statute. In that case a pound of lard was sold from a fifty pound package properly labeled with its constituent parts, but it was held that the retail dealer was not required to label the small packages sold. That opinion is based upon the well known rule that penal statutes must be strictly construed. The statute of Michigan expressly provides that these mixtures must be labeled showing the different kinds of ingredients contained in them. Sec. 2 is as follows:

"The term food, as used herein, shall include all articles used for food or drink, or intended to be eaten or drank by man, whether simple, mixed or compound."

This is a general statute covering all food products not otherwise specifically provided for. We consider its provisions perfectly plain, and not subject to any misunderstanding or uncertainty. To hold otherwise would substantially exclude all the benefits and protection to the people of the state which the statute was clearly designed to grant. We, therefore, hold that retail packages of small amounts taken from the original package of the manufacturer, and sold to the consumer, must be properly labeled as the law directs.

The court below dismissed the complainant's bill, thereby granting

it no relief whatever. In view of the position taken by the Food Commissioner in his circulars and answer herein filed; and in view of the importance to the complainant, and to the people of the state to know under what conditions a wholesome article of interstate commerce may be sold in this state, we think the learned circuit judge should have entered a decree defining the rights and determining under what conditions complainant, as well as other manufacturers, may have their valuable and wholesome products sold by the retail dealers, and to restrain the defendants from interfering with such legitimate sales.

The Food Commissioner, as above stated, denied in his answer that the sausage made by the complainant was a wholesome product, or that it was a mixture or compound within the meaning of the act, and insisted that it was an adulteration. His attitude is further shown by his reply to complainant's letter of January 17, 1907, asking "if there would be any objection to using cereal if such fact is stated on label same as provided by national law." He denied this permission, which was, not only a compliance with the federal law, but a compliance with the state law.

The use of cereal in the manufacture of sausage has been very general. The State Food and Dairy Commissioner of Iowa, who at the time of the hearing below had held office for five years, testified to its general use in that state, stating that "the ingredients used by the Iowa manufacturers in making sausage are chopped meats, salt, spices, flour and sufficient water." In July, 1907, he issued a bulletin stating:

"The Commissioner has no authority to establish standards for the information of the public, it is here stated that this Department will not interfere with the sale of sausage because of the presence of wholesome flour, provided that an analysis does not show more than five per cent of such flour."

It appears to be established by the evidence that sausage made with cereal is sold cheaper than that made of meats alone. If so, the people desiring to buy and eat the cheaper products should have the privilege of doing so, and such product should not by any decision of the court be prohibited from sale.

The opinion of the circuit judge does not prohibit its sale when properly labeled. He held that the trouble was not with the use of cereal, but in permitting the product to be sold at the retail counter without informing the customer that cereal is a part of it. Counsel for respondents conceded in the oral argument in this court that it was a wholesome food and was entitled to sale in this state, when sold under a proper label informing customers of what it is composed.

It is conceded that the use of cereal requires more water than does sausage made with meat alone. Anyone of intelligence would, upon reflection, know this to be the fact. The only doubt I entertain in the case is whether the label should, in addition to the words "with cereal," contain also "and water." In view of the fact that water is generally used in the manufacture of all sausage, and that no law or regulation of the food department has fixed the amount of water that may be used, it would seem like judicial legislation for the court to require the label to show that water is used in the manufacture.

The statute does not require the label to state the proportion of the ingredients composing the mixture, but only the names of the ingredients. The statute makes special provision for butter, cheese, lard, canned fruits and vegetables, coffee and molasses. There are other statutes governing the manufacture and sale of specific products requiring the proportions of the ingredients to be placed upon the labels, such as Act 123, Public Acts 1903; *People v. Harris*, 135 Mich. 136.

It is within the power of the legislature to pass an act specifically provided for the manufacture and sale of sausage, and that the labels should state the proportions of the ingredients used. We hold a label "sausage with cereal" upon packages sold to consumers is a compliance with the statute in labeling the mixture, and a decree should be entered so stating. A decree will be entered in this court in accordance with the above opinion.

No costs will be allowed.

PEOPLE v. JACOB.

(Opinion filed January 4, 1915.)

State Officers—Dairy and Food Commissioner—Inspection of Prisons by Statutes—Act 12, P. A. 1905.

In the prosecution of the Superintendent of the Detroit House of Correction for his refusal to permit inspectors of the State Dairy and Food Department to inspect the prison;

HELD, (by an equally divided Court): Though the State Dairy and Food Commissioner is limited in his investigations to inspections of the store, etc., of the manufacture or vendor of food or drink products which are made, stored, sold or offered for sale, as the Detroit House of Correction is paid by the different counties of the state for the board of prisoners sent to that institution under contract, it comes within the class that sells food, etc., and is amendable to the provisions of Act No. 12, P. A. 1905.

The inspection of state penal institutions is within the purview of the statute relating to the general Pure Food Law.

While the law provided for the inspection of penal institutions by the Board of Corrections and Charities (Sec. 2252, C. L. 1897) and in the case of the Detroit House of Correction, by the Board of Inspectors appointed by the Common Council of the City, the act creating the Detroit House of Correction (Sec. 2156, C. L. 1897), permits inspections by any state authority, of which the State Dairy and Food Department is one.

In an opinion by Justice Stone (*Ostrander, Kuhn, Moore, JJ.*, concurring) the opposite view is taken.

Exceptions to recorder's court of Detroit. William F. Connolly, judge.

Appeal of Bernhardt Jacob from a conviction for refusing to permit inspectors from the State Dairy and Food Department to inspect the Detroit House of Correction. Affirmed.

Grant Fellows, Attorney General; James W. Helme, Dairy and Food Commissioner, both of Lansing, for the People.

William E. Tarsney, assistant corporation counsel, (Richard I. Lawson, corporation counsel, of counsel), both of Detroit, for defendant.

Before the Full Bench.

Stone, J.: This case is before us upon exceptions before sentence. The appellant is the superintendent of the Detroit House of Correction, a state penal institution, located in the city of Detroit. On October 21, 1913, Burr B. Lincoln, a state dairy and food inspector, sought to make an investigation of the food conditions in the said institution, and for that purpose he called upon the appellant and requested that he be permitted to go through the building and see the foods that were there served. This request was refused by the appellant, who informed the inspector that he had no right there; that it was an institution over which the dairy and food inspectors had no jurisdiction, and that he could not go through the institution. Because of this refusal complaint was made charging appellant with a violation of Act No. 167 of the Public Acts of 1899, being "An act in relation to the powers and duties of the Dairy and Food Commissioner of the State of Michigan." This act provides that any person who shall obstruct the said commissioner, or his deputy, or any of his duly appointed inspectors, by refusing to allow him entrance to any place where he is authorized to enter in the discharge of his official duty, shall be guilty of a misdemeanor, and prescribes the punishment.

A hearing was had upon this complaint in the recorder's court, and the respondent and appellant was by the verdict of a jury, found guilty as charged.

The questions raised by the assignments of error, may be combined into the one question, namely: Has the Dairy and Food Commission, or its inspectors power, under the law, to investigate the food conditions of the Detroit House of Correction?

On the part of the people it is contended that ample power is vested in the inspectors of the Dairy and Food Commission to make such investigation, and that in view of the refusal of the superintendent to permit the making of the investigation, he had violated the act above referred to. Attention is called by the People to Chapter 76, Compiled Laws of 1897, under the provisions of which said institution was erected, and is controlled, and especially to Section 2156, which provides that:

"The management and direction of the said house of correction, subject to periodical inspection by the state authorities, in their discretion, shall be under the control and authority of a Board of Inspectors, to be appointed for that purpose by the Common Council of the City of Detroit upon the nomination of the mayor."

It is urged by the prosecution that under this section alone the state has a right to inspect the institution, and that the right of inspection by any state authority, is here given; that authority to inspect this institution is made still plainer by the Pure Food Laws of the state; that Sec. 6 of the Act creating the office of the Dairy and Food Commissioner and defining his powers and duties (C. L. 4978, as amended by Act 12, Pub.

Acts of 1905), states that such commissioner or his deputy, or any person appointed by him for that purpose,

"shall have power, in the performance of their duties, to enter into any creamery, factory, store, salesroom, drug store, or laboratory, or place where they have reason to believe food or drink are made, stored, sold or offered for sale and open any cask, tub, jar, bottle or package containing or supposed to contain, any article of food or drink, and examine or cause to be examined the contents thereof, and take therefrom samples for analysis."

Attention is also called to Sec. 4 of the Amendatory Act of 1905, which provides that the inspectors shall have the same right to access to the places to be inspected as the said commissioner or his deputy.

A reading of the entire Sec. 6, above referred to, shows that the Dairy and Food Commissioner, his deputy or inspectors, shall regulate filthy and unsanitary conditions which may exist in the operation of any bakery or other places where "any food or drink products are manufactured, stored, deposited or sold for any purpose whatever."

It was admitted upon the trial of the case that a bakery was maintained in the institution to bake bread for the prisoners, at the time complained of.

Sec. 5029, Compiled Laws of 1897 makes it the duty of the Dairy and Food Commissioner of the state to investigate all complaints for violations of the act known as the General Pure Food Law, and especially it is made the duty of the food inspectors in the cities to examine all complaints made to them of violations of the act.

On the part of the defendant and appellant it is contended that the act creating the State Dairy and Food Commission, and the amendments thereto, together with Act No. 167 of the Public Acts of 1899, did not confer the right upon the State Dairy and Food Commission or its inspectors to inspect the food conditions of a public or state institution such as the Detroit House of Correction.

It is urged by defendant's counsel that, by the terms of the act creating it, the institution is used for the confinement, punishment and reformation of criminals, or persons sentenced thereto, under the laws authorizing the confinement of convicted persons in the House of Correction; that the management and direction of the said House of Correction subject to periodical inspection by the state authorities is, by statute, placed under the control and authority of a board of inspectors appointed by the common council of the city of Detroit upon the nomination of the mayor; that this board of inspectors is authorized and empowered by the common council to make rules for the regulation and discipline of the House of Correction, and to appoint a superintendent; that under the statute the superintendent has entire control and management of all its concerns subject to the authority established by law, and the rules and regulations adopted for its government.

It is contended by the appellant that the Detroit House of Correction is not any one of the places named in which the state dairy and food commissioner or his inspectors are authorized to enter; that the institution is not a creamery, factory, store, etc., or a place where the inspectors would have reason to believe food and drink are made, stored and offered for sale, within the meaning of the statute.

An examination of the statutes relevant to this subject has led us to the conclusion that the public penal institutions of this state, including

the Detroit House of Correction, are not within the purview or terms of the statute relating to the General Pure Food Law. The legislature has provided a visitorial board whose duty it is to inspect these institutions and make due report thereon. As early as 1871 provision was made for a commission to be appointed, subsequently called "The Board of Corrections and Charities," of which the governor is ex officio a member. Sec. 2252, Compiled Laws reads as follows:

"The said commissioners, by one of their number, or by their secretary, shall, at least once in each year, visit and examine into the condition of each and every of the city and county poorhouses, county jails, or other places for the detention of criminals or witnesses and the said board or a majority thereof, with their secretary, shall, at least once in each year, visit and examine the reform school, state prison, Detroit house of correction, and state and county asylums for the insane, and the deaf, dumb and blind, and for the purpose of ascertaining the actual condition of the institutions by them or either of them visited, the method of instruction, government, or management therein pursued, the official conduct of the superintendents or other officers and employees in charge thereof, or connected therewith, the condition of the buildings, grounds, or other property thereunto belonging, and the facts as to all other matters in any manner pertaining to the usefulness and proper management of the institutions, poorhouses, and jails above named. They, or either of them, and their secretary, shall have free access thereto at any and all times, and shall have authority to administer oaths and examine any person or persons in any way connected with or having knowledge of the condition, management, and discipline of such institutions, jails or poorhouses, as to any matters or inquiries not contrary to the purposes or provisions of this act."

Attention is called to the remaining portions of this statute:

An examination of the statutes relating to the government of the state prisons and reformatories, the powers and duties of boards of control and of the wardens of the institutions, will show that these officers have plenary power and control over all matters relating to the government of the institutions, including food, medicine, clothing, bedding, etc.—everything which pertains to the health and well-being of the inmates. With these ample provisions, and the added power of visitation lodged in the Board of Corrections and Charities, it does not seem to us that it was the intention of the legislature that this ground was also to be covered by the Dairy and Food Commission. In our opinion, that commission has no jurisdiction over these institutions, but its right to inspect is limited to the store, etc., of the manufacturer or vendor of food or drink products, which are made, stored, sold or offered for sale to the general public.

It will be noted that the language relied upon by the People in the Amendatory Act of 1905, defining the several places, where inspection may be made by the dairy and food commissioner, is specific in designating certain places, to-wit: Creamery, factory, store, salesroom, drug store or laboratory, followed by the general words, "or places where they have reason to believe food or drink are made, stored, sold or offered for sale." This general language must be construed as meaning places of the same kind, of the same general character or sort as those named.

Although it appears in this record that the Detroit House of Correction bakes its own bread for its inmates, and for that purpose may be said to operate a bakery, yet it does not seem to us that such a place can be covered by any of the specific words mentioned. Certainly it is not a creamery, factory, store, salesroom, drug store or laboratory, as

those words are used in the statute. The general rule should here apply that when after the enumeration a statute employs some general term to embrace other cases, the other cases must be understood to be cases of the same general character, sort, or kind, with those named. In other words, "they are known from their associates."

Brooks vs. Cook, 44 Mich., 617-619, and cases cited;

Roberts vs. City of Detroit, 102 Mich., 67;

Drake vs. Industrial Works, 174 Mich., 662.

We are, therefore, forced to the conclusion that the Detroit House of Correction—a state penal institution, with its superintendent, and its board of inspectors, subject to the visitation of the Board of Corrections and Charities—is not embraced within, and was not intended to be embraced within, the provisions of the Pure Food law, and that the inspector had no authority to enter the premises. Whenever the legislature desires to clothe the Pure Food Commission with such authority it will doubtless so express itself. We think it has not done so in the past legislation. Reaching this result, that conflict in jurisdiction of the different boards, which would lead to an unseemly contest, is avoided. The conviction must therefore be reversed, and the defendant discharged.

Ostrander, Kuhn and Moore, JJ., concurred with Stone, J.

Brooke, C. J.: Mr. Brother Stone in the earlier part of his opinion states very clearly, the contentions made on behalf of the people in this case. It is claimed that the dairy and food commissioner, or his deputy, is authorized to make the inspection, which was denied, upon two grounds:

1st. Under the act creating the Detroit House of Correction, Sec. 2 (C. L. 1897, Sec. 2156), which provides:

"The management and direction of the said house of correction, subject to periodical inspection by the state authorities in their discretion, shall be under the control and authority of a board of inspectors, to be appointed for that purpose by the common council of the city of Detroit."

It is claimed on behalf of the people that this language used in the law of its creation is broad enough to warrant the inspection of said institution by ANY state authority. In my opinion the contention is fully warranted by the language used. It would be difficult to select words of more general import than those used in the statute:

"subject to periodical inspection by the state authorities in their discretion."

No particular state authority is pointed out, nor is the right of inspection limited to any such particular authority. There is no doubt that included among the state authorities entitled to the right of inspection is the State Board of Charities. It, however, by no means follows that the exercise of the right by that board exhausts the authority of the state under the language of the section above quoted. It seems to me clear that the labor department might very properly inspect the institution to determine whether proper safety devices were employed as provided by the general laws of the state touching that subject. The State Board of Health, too, should have authority to inspect and determine whether

the laws relating to sanitary conditions were being obeyed therein. And closely akin to the necessity for such inspection is the necessity for inspection by the State Dairy and Food Department in order that it may be determined that the food served is wholesome in quality.

It should be borne in mind that the institution is one of considerable magnitude within the walls of which are confined several hundreds of prisoners, male and female. The female prisoners therein are boarded at the expense of the state and many counties of the state having individual contracts with the institution, by the terms of which a per diem amount is paid for the board and medical attendance of each prisoner.

Several industries are carried on in the institution requiring the use of machinery. In my opinion, it is an institution peculiarly requiring the supervision of every department of the state whose activities are directed to securing to the inhabitants thereof sanitary conditions, wholesome food, and freedom from danger to life and limb through the use of improperly guarded machinery.

If there could be any doubt of the right of the people to insist that the dairy and food commissioner, or his deputies, is authorized to make the inspection which was denied in the instant case, it is disposed of by a reading of Section 6 (C. L., 1897, Section 4978), of the law creating that department. That section authorizes the entry of the commissioner, or his deputies, to certain named places and,

"or places where he had reason to believe food or drink is made, stored, sold or offered for sale."

In my opinion it is idle to say that the House of Correction is not such a place. Whatever may be said of other penal institutions of the state, this particular institution stores food in large quantities, which it sells. The record shows that during the year it received the very considerable sum of \$32,659.00 for the board of prisoners confined therein.

It is, in a sense, in the business of selling food. The fact that its customers happen to be the state itself and several political divisions of the state, makes no difference in the principle involved. It would, I think, scarcely be contended that a hotel, keeping, storing, and offering food for sale to its guests was not subject to the inspection provided for in the act creating the Dairy and Food Department. In any event I think such a construction of the legislation is too narrow and I quite agree with the opinion expressed by the learned judge, who, in refusing to charge as requested by the respondent, said:

"I refuse to give this request to charge, gentlemen of the jury, upon the ground that it is my opinion that the spirit of the Dairy and Food Law is to procure and secure proper food and drink for all of the inhabitants of the state. That is its general purpose and scope. And that the terms of the act creating the Dairy and Food Commission, the acts amendatory thereto, are broad enough to include the Detroit House of Correction and all other penal institutions."

The judgment of the court below should be affirmed.

McAlvay, Bird and Steere, JJ., concurred with Brooks, C. J.

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